<110> Rosen et al.

<120> 28 Human Secreted Proteins

<130> PZ003P3

<140> Unassigned
<141> 2001-05-11

<150> 60/265,583
<151> 2001-02-02

<150> 09/152,060
<151> 1998-09-11

<150> PCT/US98/04858
<151> 1998-03-12

<150> 60/040,762
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<150> 60/050,934
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<151> 1997-06-06

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<151> 1997-12-19

<160> 118

<170> PatentIn Ver. 2.0

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tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg        240
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ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca accccatcg         360
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catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct        480
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ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg        600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc        660
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<212> PRT
<213> Homo sapiens

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<223> Xaa equals any of the twenty naturally ocurring L-amino acids

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Trp Ser Xaa Trp Ser
 1   5

<210> 3
<211> 86
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<213> Homo sapiens

<400> 3
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<213> Homo sapiens

<400> 4
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<210> 5
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<400> 5
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gcccctaact ccgcccagtt ccgcccattc tccgcccat ggctgactaa ttttttttat        180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt        240
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<211> 31
<212> DNA
<213> Homo sapiens

<400> 7
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<211> 12
<212> DNA
<213> Homo sapiens

<400> 8
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<210> 9
<211> 73
<212> DNA
<213> Homo sapiens

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ccatctcaat tag                                                           73


<210> 10
<211> 256
<212> DNA
<213> Homo sapiens

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cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga       180
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<210> 11
<211> 2084
<212> DNA
<213> Homo sapiens
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<222> (839)
<223> n equals a,t,g, or c

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ccgcagcttg gcagcccctg ggtttctctt ggaaatggtc agtttcccct caaagtaccc       420
aaagtagcct tggcttgagt ttttgtcctt gcctcctttt tagagaagag ggcatttaga       480
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tgccctgtgc cctggacctt ttcctgccct tctccttcct ctgctccctt ggggctaccc      1020
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gacatattta tttttgtcta ttctgtaggc ttccatgtcc agaatcctgc ttaaggtttt      1980
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<210> 12
<211> 1586
<212> DNA
<213> Homo sapiens

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tcgtcttcaa ggccaagcac gtggagactg gcgagatagt tgccctcaag aaggtggccc       180
taaggcggtt ggaagacggc ttccctaacc aggccctgcg ggagattaag gctctgcagg       240
aratggagga caatcagtat gtggtacaac tgaaggctgt gttcccacac ggtggaggct       300
ttgtgctggc cttttgagttc atgctgtcgg atctggccga ggtggtgcgc catgcccaga       360
ggccactagc ccaggcacag gtcaagagct acctgcagat gctgctcaag ggtgtcgcct       420
tctgccatgc caacaacatt gtacatcggg acctgaaacc tgccaacctg ctcatcagcg       480
cctcaggcca gctcaagata gcggactttg gcctggctcg agtctttcc ccagacggca       540
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gatctccttt aaggagcagg tgcccatgcc cctggaggak gtgctgcctg acgtctctcc     660
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ccaatataat cccagctagt gcttttcct tattataatt tgataaggtg attataaaag    1440
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aaaaaaaaaa aaaaaaaaaa actcga                                         1586
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<211> 689
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<213> Homo sapiens

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aattgcaggg cagcctgcca tgatctttct cacttactcc tctcccattc agcaatcaac     180
cagactaagg agttttgatc cctagtgatt acagccctga agaaaattaa atctgaatta     240
attttacatg gccttcgtga tctttctgct gttcttactt tttcgaatgt agttgggggg     300
tgggagggac aggttatggt atttaaagag aataaacatt ttgcacatac atgtattgta     360
caacagtaag atcctctgtt aaaaccagct gtcctgttct ccatctccat ttcttcccat     420
gctgtaaccc caggctccac cagctgttcc ccagtgatgt tacctagctt ccctctaccg     480
ttgtctactg accatttcca ctacatgcct ttcctacctt cccttcacaa ccaatcaagt     540
gaatacttga ttattatctc ttccttactg tgctttatct ttttgtttg gattggttct     600
aattaatgaa aataaaagtt tctaaattta cattttata gggtattgta aataaaaaca     660
aatgtatact taaaaaaaaa aaaaaaaaa                                       689
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<210> 14
<211> 1348
<212> DNA
<213> Homo sapiens

<220>
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<223> n equals a,t,g, or c

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agggctcgag cccagaaaac tatcctctaa gaccagacgt gacaaggaga agcagagctg     120
taagagctgt ggtgagacct tcaactccat caccaagagg aggcatcact gcaagctgtg     180
tggggcggtc atctgtggga agtgctccga gttcaaggcc gagaacagcc ggcagagcct     240
gtctgcagag attgtttcct gacacagcca gtggcccctg agagcacaga gaagacaccc     300
actgcagacc cccagcccag cctgctctgc ggccccctgc ggctgtyaga gagcggtgag     360
acctggagcg aggtgtgggc cgccatcccc atgtcagatc cccaggtgct gcacctgcag     420
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agcactgctg cccatgggga cacggcccag gacagcccgg gggccctgca gcttcaggtc        660
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gagggtgggc aacagcccca gagytcagga catttggctt tggggggaag gaaaytgagg        840
cccagagagg ggcaaccayt ggccaagggt cacccagcaa gttttggyta agagcctggc        900
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atgggccgtg tggtgatgct ggcccggaag gcagaaagag gcagcatggg cactgccagg       1020
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taaccacgct cagaagctct gctaggactt accccagcca ctgagtggca ggcgcatgag       1260
atttgtggct gttcctgatg ctagtggcac acagtgctta tctgcataaa taaacactgg       1320
scaccaaaaa aaaaaaaaaa aaaaaaac                                          1348
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<210> 15
<211> 1123
<212> DNA
<213> Homo sapiens

<400> 15

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agggagcgga gcaaggagga gaaggtgcct gaatgggaac cccccgaagc gcctgaaaag        180
gagagacagg aggatgatgt cccagctgga gctgctgagt gggggagaga tgctgtgcgg        240
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cttggaaaga gacctagtac ttcctctgct ctgcaaagac tattgcaaag aattcttta         480
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accagcatct aactacttgg accagatgga agaatatgac aaagtggaag agatcagcag        660
aaagcacaaa cacaactgct ctgtattca ggaggttgtg agtgggctgc ggcagccgt          720
tggtgccctg catagtgggg atggctcgca acgtctcttc attctggaaa aagaaggtta        780
tgtgaagata cttaccccctg aaggagaaat tttcaaggag ccttatttgg acattcacaa       840
acttgttcaa agtggaataa aggttggctt tttaaatttt atttatttt gtgctggcta         900
cgttaatttt attttagtgt taccttcctc actgaaggta tttcttgta ataaaagaaa         960
gaatcttgca ggagaaaata aggggcaac ataagaaaca ataattatgg cacctgaatt        1020
aggacagtga cattaaattt ctgttatttg ttaaaaaaaa aaaaaaaaaa aaaaaaaaaa       1080
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa                         1123
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<211> 890
<212> DNA
<213> Homo sapiens

<400> 16

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tccctactgt gccatgtcct ggggcatttg gaagggactg gacctctttc ccctcatcaa        180
aggaaacagc agtctttgcc tctttctgtt ggttgtgccc aagggctaca gtagctctga        240
aataacaaga gctctgtaat aacagtaata aatagctctg aaataacagt cctaagaact        300
cctaaagtcc tgagaacttt tcttgtaatg cagcttttc tcttcctgag aaacagtgtg        360
ttctaatggg attcccaggc agttcctaca cctacggtgt gtgttccagc agggaggagt        420
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tatgggctgg gctgcctttt cccatgggtc ttcattccca atggaaagtt cactctgctt        480
agtttggaat tattttttctt tcagttgttc tggaacctttt gcttttttatt gatttataca        540
atacaattgg tgggagggtg gacttgggat gggagtggga aaagcatgta agagctcctt        600
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ctaaattaga tcaagttgtt attgatttta gatgacttgt atgcaaattt gaaaaacttt        720
ttttttttaaa gctgattggg aactacaaac aatgaatgga atctactgac acagctaatt        780
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aaaaagaata aatagttcta aaagcaaaaa aaaaaaaaaa aaaaaaattc        890


<210> 17
<211> 619
<212> DNA
<213> Homo sapiens


<400> 17
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ctccgccccg caacactctc acttgcccct cgtgtcccat caggtcctgc tgactccatc        180
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gtctctacca gaaaatacaa aaatgagcca ggcatagtgg tgtgcacctg tagtcccagc        480
tacttgggag gctgaggtgg gaggatcacc tgagcccagg aagtcaaggc tgccagtgag        540
ccatgatcac accactgcac tccagcctgg gccacagagt gagaccctgt ctcaaaaaaa        600
aaaaaaaaaa aaaactcga        619


<210> 18
<211> 1768
<212> DNA
<213> Homo sapiens


<220>
<221> SITE
<222> (483)
<223> n equals a,t,g, or c


<400> 18
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gtggcccctc ctctcaggcg ttcagatggt gcgaacagca gagcaggcaa gggaaactgg        180
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caacttgcaa ggggttcctt ctggtcctcc catccactgc caccttccat tttgtccatc        360
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caaggctctt attcaatacc acgttccgag ttggcctttc atcttctttg agactggccc        480
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cgggcggtgt gtgtgtgttc tggtgggagg gatctgagca agtgcaagcc tggctgacac        780
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cagctgcaga gagtttggct atatgcatct gcagccccaa gagctcccac tgcaagacaa        900
gtgttggggga agatgggagg ttgtgggtga ggcctctaaa ggtcctctcc caaactgacc        960
aggctgatgt caacctaacc ccctcagggg cagggaacag ggagggctc cacaagcgtg       1020
tctggcattc ccacccacca tggaagactg gatacgcacc tggaaacaaa aggactatgg       1080
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ggacacaaat acgttgttcc agagctcagc cttctcactc taaaagaaag atatttttct        1200
atttattttc tacatctggc cagtggctct ggtgctagat gccactgtag ccagatctcc        1260
aacagtgcct tggaccatgg actcatactc aactgagtaa gaaggggctg gtgccagtcg        1320
gggtggctga gctggtcctt aataggttgt ttcttggtct tgctttcttc atgccctccc        1380
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cgtcatcaac ctaacaaaca caaccttctc agcagcattt ctcccctgtg atggaaataa        1500
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gcctctccct actcccatcc catttccacc aactggggaa ctgtgactat ctatctcccc        1620
cgacttctac cagggatgcc ttcagccaag gctgttctca ccagctgcct cagatgacaa        1680
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<210> 19
<211> 1699
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (871)
<223> n equals a,t,g, or c

<400> 19
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tgtattcggt gccgcgactt tcacgatggc tcgcccaacc ttactacctt ctgtcggccc        120
tgctctctgc tgccttccta ctcgtgagga aactgccgcc gctctgccac ggtctgccca        180
cccaacgcga agacggtaac ccgtgtgact ttgactggag agaagtggag atcctgatgt        240
ttctcagtgc cattgtgatg atgaagaacc gcagatccat cactgtggag caacatatag        300
gcaacatttt catgtttagt aaagtggcca acacaattct tttcttccgc ttggatattc        360
gcatgggcct actttacatc acactctgca tagtgttcct gatgacgtgc aaacccccccc        420
tatatatggg ccctgagtat atcaagtact tcaatgataa aaccattgat gaggaactag        480
aacgggacaa gagggtcact tggattgtgg agttctttgc caattggtct aatgactgcc        540
aatcatttgc ccctatctat gctgacctct cccttaaata caactgtaca gggctaaatt        600
ttgggaaggt ggatgttgga cgctatactg atgttagtac gcggtacaaa gtgagcacat        660
caccccctcac caagcaactc cctaccctga tcctgttcca aggtggcaag gaggcaatgc        720
ggcggccaca gattgacaag aaaggacggg ctgtctcatg gaccttctct gaggagaatg        780
tgatccgaga atttaactta aatgagctat accagcgggc caagaaacta tcaaaggctg        840
gagacaatat ccctgaggag cagcctgtgg nttcaacccc caccacagtg tcagatgggg        900
aaaacaagaa ggataaataa gatcctcact ttggcagtgc ttcctctcct gtcaattcca        960
ggctctttcc ataaccacaa gcctgaggct gcagcctttt atttatgttt tccctttggc       1020
tgtgactggg tggggcagca tgcagcttct gattttaaag aggcatctag ggaattgtca       1080
ggcaccctac aggaaggcct gccatgctgt ggccaactgt ttcactggag caagaaagag       1140
atctcatagg acggaggggg aaatggtttc cctccaagct tgggtyagtg tgttaactgc       1200
ttatcagcta ttcagacatc tccatggttt ctccatgaaa ctctgtggtt tcatcattcc       1260
ttcttagttg acctgcacag cttggttaga cctagattta accctaaggt aagatgctgg       1320
ggtatagaac gctaagaatt ttcccccaag gactcttgct tccttaagcc cttctggctt       1380
cgtttatggt cttcattaaa agtataagcc taactttgtc gctagtccta aggagaaacc       1440
tttaaccaca aagttttat cattgaagac aatattgaac aacccctat tttgtgggga         1500
ttgagaaggg gtgaatagag gcttgagact ttcctttgtg tggtaggact tggaggagaa       1560
atcccctgga cttcactaa ccctctgaca tactccccac acccagttga tggctttccg        1620
taataaaaag attgggattt ccttttgaaa aaaaaaaaa aaaaaaaaa aaaaaaaaaa         1680
aaaaaaaaaa aaaaaaaag                                                    1699


<210> 20
<211> 736
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<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (701)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (728)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (733)
<223> n equals a,t,g, or c

<400> 20
aagtgagtta aggacgtact cgtcttggtg agagcgtgac tgctgagatt tgggagtctg        60
cgctaggccc gcttggagtt ctgagccgat ggaagagttc actcatgttt gcacccgcgg       120
tgatgcgtgc ttttcgcaag aacaagactc tcggctatgg agtccccatg ttgttgctga       180
ttgttggagg ttcttttggt cttcgtgagt tttctcaaat ccgatatgat gctgtgaaga       240
gtaaaatgga tcctgagctt gaaaaaaaac tgaaagagaa taaaatatct ttagagtcgg       300
aatatgagaa aatcaaagac tccaagtttg atgactggaa gaatattcga ggacccaggc       360
cttgggaaga tcctgacctc ctccaaggaa gaaatccaga aagccttaag actaagacaa       420
cttgactctg ctgattcttt tttccttttt ttttttttta aataaaaata ctattaactg       480
gacttcctaa tatatacttc tatcaagtgg aaaggaaatt ccaggcccat ggaaacttgg       540
atatgggtaa tttgatgaca aataatcttc actaaaggtc atgtacaggt ttttatactt       600
cccagctatt ccatctgtgg atgaaagtaa caatgttggc cacgtatatt ttacacctcg       660
aaataaaaaa tgtgaatact gctccaaaaa aaaaaaaagt nggcgagctt ccctagggg        720
ggtaattngc tgntgc                                                        736


<210> 21
<211> 1688
<212> DNA
<213> Homo sapiens

<400> 21
caaagaaggg attcatcttg cattggtgga gctgctgaaa aatttaacca agtaccctac        60
tgatagggac tccatatgga agtgcttgaa gtttctggga agtcggcatc caaccctggt       120
gcttcccttg gtgccagagc ttctgagcac ccacccattt tttgacacag ctgaaccaga       180
catggatgat ccagcttata ttgcagtttt ggtacttatt ttcaatgctg ctaaaacctg       240
tccaacaatg ccagcattgt tctcagatca caccttcagg cactatgcct acctccgaga       300
cagtctttct catcttgttc ctgccttgag gttaccaggt agaaaactgg tgtcatcagc       360
tgtttctccc agcatcatac ctcaagagga tccttcccag cagttcctgc agcagagcct       420
tgaaagagtg tatagtcttc agcacttgga ccctcaggga gcccaggagc tgctggaatt       480
caccatcagg gatctgcaaa gacttggaga acttcaatct gaattggcag gagtagctga       540
tttctctgcc acctatcttc gctgtcaact acttctcatc aaggccttgc aggaaaagtt       600
gtggaatgta gctgcccctt tgtatttgaa gcagagtgat ttggcctcag cagcagcgaa       660
acagattatg gaagagacct acaaaatgga attcatgtac agtggtgtgg agaataagca       720
ggtggtgatt atacatcaca tgaggctgca ggccaaagct ttgcaactta tagtaacagc       780
acgaactaca cgaggacttg acccccttatt tgggatgtgt gaaaaatttt tacaggaagt       840
agactttttt cagaggtatt tcatcgctga tttgccccac ttgcaggaca gctttgtgga       900
caaactcctt gaccttatgc cccgactcat gacatccaaa cctgcagaag tggtcaaaat       960
tctacagacc atgctgcgac agagtgcctt tctgcatctc ccgcttccag agcagatcca      1020
caaagcctca gccaccatca tcgagccagc gggcgagttc agacaaccct ttgcggttta      1080
```

```
cctctgggtt ggtggttgcc ctgggatgtt gatgcaaccc tggagcatgt gcaggatcct    1140
cagaacactg ttaaggtcca gggtcttata tccagatggc caggsttcag atgattcacc    1200
ccaagcctgc agacttccgg aatcctggcc cagggcggca ccggctcatc actcaggttt    1260
atctctccca caccgcttgg acagaggcat gccaggtgga agtgaggctg ctgctggcct    1320
acaactccag tgctcgcatt ccaaaatgcc cctggatgga gggtggtgag atgtcaccac    1380
aggtggaaac cagcatcgag ggcaccattc ccttcagcaa gcctgtaaaa gtttatataa    1440
tgcccaaacc tgcacggcgc taaggcaaaa acagtcttcc caaccgtgcc tagagggccc    1500
ttcttaggtg tcagaatgag ccaagcctga agcacttcac ctggaattga tgtgtaggct    1560
taaggagtat gtgaccctta cagtctcatc tggtatcaaa cacaggataa attgtttctt    1620
cattaaaaaa taaaaaacct tcaagtctac ttacccttct cctgtccaca ataaagttga    1680
gaaaacac                                                             1688
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<210> 22
<211> 2045
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2040)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2041)
<223> n equals a,t,g, or c

<400> 22
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ggagcggcgg aggagccggc agcagcggcg cggcgrgctc caggcgaggc ggtcgacgct    120
cctgaaaact tgcgcgcgcg ctcgcccact gcgcccggag cgatgaagat ggtcgcgccc    180
tggacgcggt tctactccaa cagctgctgc ttgtgctgcc atgtccgcac cggcaccatc    240
ctgctcggcg tctggtatct gatcatcaat gctgtggtac tgttgatttt attgagtgcc    300
ctggctgatc cggatcagta taacttttca agttctgaac tgggaggtga ctttgagttc    360
atggatgatg ccaacatgtg cattgccatt gcgatttctc ttctcatgat cctgatatgt    420
gctatggcta cttacggagc gtacaagcaa cgcgcagctg ggatcatccc attcttctgt    480
taccagatct ttgactttgc cctgaacatg ttggttgcaa tcactgtgct tatttatcca    540
aactccattc aggaatacat acggcaactg cctcctaatt ttccctacag agatgatgtc    600
atgtgcagtg aatcctacct gtttggtcct tattattctt ctgtttatta gcattatctt    660
gacttttaag ggttacttga ttagctgtgt ttggaactgc taccgataca tcaatggtag    720
gaactcctct gatgtcctgg tttatgttac cagcaatgac actacggtgc tgctacccc    780
gtatgatgat gccactgtga atggtgctgc caaggagcca ccgccacctt acgtgtctgc    840
ctaagccttc aagtgggcgg actgagggca gcagcttgac tttgcagaca tctgagcaat    900
agttctgtta tttcactttt gccatgagcc tctctgagct tgtttgttgc tgaaatgcta    960
ctttttaaaa tttagatgtt agattgaaaa ctgtagtttt caacatatgc tttgctrgaa   1020
cactgtgata gattaactgt agaattcttc ctgtacgatt ggggatataa yggcttcac    1080
taaccttccc taggcattga aacttccccc aaatctgatg gacctagaag tctgcttttg   1140
tacctgctgg gccccaaagt tgggcatttt tctctctgtt ccctctcttt tgaaaatgta   1200
aaataaaacc aaaaatagac aacttttct tcagccattc cagcatagag aacaaaacct   1260
tatggaaaca ggaatgtcaa ttgtgtaatc attgttctaa ttaggtaaat agaagtcctt   1320
atgtatgtgt tacaagaatt tcccccacaa catcctttat gactgaagtt caatgacagt   1380
ttgtgtttgg tggtaaagga ttttctccat ggcctgaatt aagaccatta gaaagcacca   1440
ggccgtggga gcagtgacca tctgctgact gttcttgtgg atcttgtgtc caggacatg   1500
gggtgacatg cctcgtatgt gttagagggt ggaatggatg tgtttggcgc tgcatgggat   1560
ctggtgcccc tcttctcctg gattcacatc cccacccagg gcccgctttt actaagtgtt   1620
ctgccctaga ttggttcaag gaggtcatcc aactgacttt atcaagtgga attgggatat   1680
atttgatata cttctgccta acaacatgga aaagggtttt cttttccctg caagctacat   1740
```

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cctactgctt tgaacttcca agtatgtcta gtcacctttt aaaatgtaaa cattttcaga      1800
aaaatgagga ttgccttcct tgtatgcgct ttttaccttg actacctgaa ttgcaaggga      1860
tttttatata ttcatatgtt acaaagtcag caactctcct gttggttcat tattgaatgt      1920
gctgtaaatt aagtygtttg caattaaaac aaggtttgcc cacatccaaa aaaaaaaaaa      1980
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaan      2040
naaaa                                                                  2045


<210> 23
<211> 1101
<212> DNA
<213> Homo sapiens

<400> 23
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ggctgtcacc tccgcctctg ctccccgacc cggccatgcg cggcctcggg ctctggctgc       120
tgggcgcgat gatgctgcct gcgattgccc ccagccggcc ctgggccctc atggagcagt       180
atgaggtcgt gttgccgygg cgtctgccag gcccccgagt ccgccgagct ctgccctccc       240
acttgggcct gcacccagag agggtgagct acgtccttgg ggccacaggg cacaacttca       300
ccctccacct gcggaagaac agggacctgc tgggytccgg ctacacagag acctatacgg       360
ctgccaatgg ctccgaggtg acggagcagc ctcgcgggca ggaccactgc ttytaccagg       420
gccacgtaga ggggtacccg gactcagccg ccagcctcag cacctgtgcc ggcctcaggg       480
gtttcttcca ggtggggtca gacctgcacc tgatcgagcc cctggatgaa ggtggcgagg       540
gcggacggca cgccgtgtac caggctgagc acctgctgca gacggccggg acctgcgggg       600
tcagcgacga cagcctgggc agcctcctgg accccggac ggcagccgtc ttcaggcctc        660
ggcccgggga ctctctgcca tcccgagaga cccgctacgt ggagctgtat gtggtcgtgg       720
acaatgcaga gttccagatg ctggggagcg aagcagccgt gcgtcatcgg gtgctggagg       780
tggtgaatca cgtggacaag ctatatcaga aactcaactt ccgtgtggtc ctggtgggcc       840
tggagatttg gaatagtcag gacaggttcc acgtcagccc cgacccagt gtcacactgg        900
agaacctcct gacctggcar gcacggcaac ggacacggcg gcacctgcat gacaacgtac       960
agctcatcac gggtgtcgac ttcamcggga ctactgtggg gtttgccagg gtgtccacca      1020
tgtgctccca cagctcaggg gctgtgaacc aggaccacag caagaacccc gtgggcgtgg      1080
cctgcaccat ggcccatgag a                                                1101


<210> 24
<211> 1659
<212> DNA
<213> Homo sapiens

<400> 24
ccgggctgca ggattcggca cgaggtggga gccaagaaga aaggtttgct cccgggtgga        60
acagggatta tcctcctcct ccccttaaga gtcatgctca agagagacac tctggcaact       120
ttcctggcag agattcactt ccctttgatt tccaggggca ttcggggcct ccttttgcaa       180
atgtagagga gcattctttc agctatggag ctagagacgg accgcatggt gactatcgag       240
gaggggaggg acctggacat gattcagggg gggagattt ttcgtcttct gatttccaga        300
gcagagattc atcacagttg gacttcaggg gtaggacat acattctggg gattttcggg        360
atagagaagg accacctatg gactataggg gtggagatgg tacttctatg gattatagag       420
gtagggaggc acctcatatg aactacagag acaggatgc tcacgctgtt gacttcagag        480
gtagggatgc tcctccatct gacttcaggg gccggggcac ttatgattta gattttagag       540
gccgggatgg atcccatgca gattttaggg gaagggattt atcagatttg gattttaggg       600
ccagagaaca gtcccgttct gatttttagga atagagatgt atctgatttg gactttagag      660
acaaagacgg aacacaagta gactttagag gccgaggttc aggtactact gatctagact       720
ttagggacag ggatacgcca cattcagatt tcagaggtag acaccgatct aggactgatc       780
aggattttag gggcagagag atgggatctt gtatggaatt aaagataggg agatgcccc        840
ctgtggatcc aaatattttg gattacattc agccctctac acaagataga gaacattctg       900
gtatgaatgt gaacaggaga gaagaatcca cacatgacca tacgatagaa aggcctgctt       960
ttggcattca gaagggagaa tttgagcatt cagaaacaag agaaggagaa acacaaggtg      1020
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tagcctttga acatgagtct ccagcagact ttcagaacag ccaaagtcca gttcaagacc      1080
aagataagtc acagctttct ggacgtgaag agcagagttc agatgctggt ctgtttaaag      1140
aagaaggcgg tctggacttt cttgggcggc aagacaccga ttacagaagc atggagtacc      1200
gtgatgtgga tcataggctg ccaggaagcc agatgtttgg ctatggccag agcaagtctt      1260
ttccagaggg caaaactgcc cgagatgccc aacgggacct tcaggatcaa gattatagga      1320
ccggcccaag tgaggagaaa cccagcaggc ttattcgatt aagtggggta cctgaagatg      1380
ccacaaaaga agagattctt aatgcttttc ggactcctga tggcatgcct gtaaagaatt      1440
gcagttgaag gagtataaca caggttacga ctatggctat gtctgcgtgg agttttcact      1500
cttggaagat gccatcggat gcatggaggc caaccaggct ggtgattagt aactaaagca      1560
tatgctgtgg aacatccagc actgatgcca gattacctgt ccctaatact gagcagaagc      1620
tggtgaatga aacaggagat ccctcagtca aaacaaaaa                            1659
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<210> 25
<211> 1329
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (520)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1140)
<223> n equals a,t,g, or c

<400> 25

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tctgttcctc tctcctggaa gcttgcagac ctcccttcag aaccaatccc aagaagccac        60
ctatccggaa caacacaagg atgctgccgg actggaagag stccttgatc ctcatggctt       120
acatcatcat cttcctcact ggcctccctg ccaacctcct ggccctgcgg gcctttgtgg       180
ggcggatccg ccagccccag cctgcacctg tgcacatcct cctgctgagc ctgacgctgg       240
ccgacctcct cctgctgctg ctgctgccct tcaagatcat cgaggctgcg tcgaacttcc       300
gctggtacct gcccaaggtc gtctgcgccc tcacgagttt tggsttctac agcagcatct       360
actgcagcac gtggctcctg gcgggcatca gcatcgagcg ctacctggga gtggctttcc       420
ccgtgcagta caagctctcc cgccggcctc tgtatggagt gattgcagct ctggtggcct       480
gggttatgtc ctttggtcac tgcaccatcg tgatcatcgn tcaatacttg aacacgactg       540
agcaggtcag aagtggcaat gaaattacct gctacgagaa cttcaccgat aaccagttgg       600
acgtggtgct gcccgtgmgg stggagctgt gcctggtgct cttcttcats cccatggcag       660
tcaccatctt ctgctactgg cgttttgtgt ggatcatgct ctcccagccc cttgtggggg       720
cccagaggcg gcgccgagcc gtggggctgg ctgtggtgac gctgctcaat ttcctggtgt       780
gcttcggacc ttacaacgtg tcccacctgg tggggtatca ccagagaaaa agcccctggt       840
ggcggtcaat agccgtgktg ttcagttcac tcaacgccag tctggacccc ctgctcttct       900
atttctcttc ttcagtggtg cgcagggcat ttgggagagg ctgcaggtg ctgcggaatc       960
agggctcctc cctgttggga cgcagaggca aagacacagc agaggggaca aatgaggaca      1020
ggggtgtggg tcaaggagaa gggatgccaa gttcggactt cactacagag tagcagtttc      1080
cctggacctt cagaggtcgc ctgggttaca caggagctgg gaagcctggg agaggcggan      1140
caggaaggct cccatccaga ttcagaaatc cttagaccca gcccaggact gcgactttga      1200
aaaaaatgcc tttcaccagc ttggtatccc ttcctgactg aattgtccta ctcaaaggag      1260
cataagtcag agatgcacga agaagtagtt aggtatagaa gcacctgccg ggtgtggtgg      1320
ctcatgcct                                                            1329
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<210> 26
<211> 700
<212> DNA
<213> Homo sapiens

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<220>
<221> SITE
<222> (81)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (659)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (692)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (700)
<223> n equals a,t,g, or c


<400> 26
ggcagagagc accatctgtc atggcggctg ggctgtttgg tttgagcgct cgccgtcttt        60
tggcggcagc ggcgacgcga ngggctcccg gccgcccgcg tccgctggga atctagcttc       120
tccaggactg tggtcgcccc gtccgctgtg gcggraaagc ggccccagaa ccgaccaca        180
ccgtggcaag aggacccaga acccgaggac gaaaacttgt atgagaagaa cccagactcc       240
catggttatg acaaggaccc cgttttggac gtctggaaca tgcgacttgt cttcttcttt       300
ggcgtctcca tcatcctggt ccttggcagc acctttgtgg cctatctgcc tgactacagg       360
tgcacagggt gtccaagagc gtgggatggg atgaaagagt ggtcccgccg cgaagctgag       420
aggcttgtga ataccgaga ggccaatggc cttcccatca tggaatccaa ctgcttcgac       480
cccagcaaga tccagctgcc agaggatgag tgaccagttg ctaagtgggg ctcaagaagc       540
accgccttcc ccaccccctg cctgccattc tgacctcttc tcagagcacc taattaaagg       600
ggctgaaagt ctgaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaana       660
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa anggggggn                             700


<210> 27
<211> 832
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (821)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (825)
<223> n equals a,t,g, or c


<400> 27
ggcacgagct ccactcggtt tctctctttg caggagcacc ggcagcacca gtgtgtgagg        60
ggagcaggca gcggtcctag ccagttcctt gatcctgcca gaccacccag ccccctggcac      120
agagctgctc cacaggcacc atgaggatca tgctgctatt cacagccatc ctggccttca       180
gcctagctca gagctttggg gctgtctgta aggagccaca ggaggaggtg gttcctggcg        240
ggggccgcag caagagggat ccagatctct accagctgct ccagagactc ttcaaaagcc        300
actcatctct ggagggattg ctcaaagccc tgagccaggc tagcacagat cctaaggaat       360
```

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caacatctcc cgagaaacgt gacatgcatg acttctttgt gggacttatg ggcaagagga      420
gcgtccagcc agactctcct acggatgtga atcaagagaa cgtccccagc tttggcatcc      480
tcaagtatcc cccgagagca gaataggtac tccacttccg gactcctgga ctgcattagg      540
aagacctctt tccctgtccc aatccccagg tgcgcacgct cctgttaccc tttctcttcc      600
ctgttcttgt aacattcttg tgctttgact ccttctccat cttttctacc tgaccctggt      660
gtggaaactg catagtgaat atccccaacc ccaatgggca ttgactgtag aataccctag      720
agttcctgta gtgtcctaca ttaaaaatat aatgtctctc tctattcctc aacaataaag      780
gattttgca tatgaaaaa aaaaaaaaa aaaaaaaaa naaanaaaaa aa                  832
```

<210> 28
<211> 2361
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2361)
<223> n equals a,t,g, or c

<400> 28
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ggcacgaggc tccctaagcg gttgtcaccg ctggagacgg ttgggagaac cgttgtggcg       60
agcgctacac gaggcaaacg acttctccct tctttgaact ggaccccgcg agcaccagag      120
tcggcgtaac tatcgcctga caggcattta aatcaaacgg tattgagatg gattgggtta      180
tgaaacataa tggtccaaat gacgctatga tgggacagta cgacttcgtg gactaccatt      240
tggttgcagc aaagaggaaa tagttcagtt ctttcaaggg ttggaaatcg tgccaatggg      300
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aataaaaaaa aaaaaaaaaa n                                               2361
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<210> 29
<211> 879
<212> DNA
<213> Homo sapiens

<400> 29
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gccacactca cctgcaccgg gaacaacaac aatgttggcg accaaggagc agcttggctg     180
cagcagcacc agggccaccc tcccaaactc ctgtcctaca ggaataataa ccggccctca     240
gggatctcag agagattatc tgcatccagg tcaggagcca catcctccct gaccattact     300
ggactccagc ctgaggacga ggctgactat tactgcgcag catatgacag cagcctcgca     360
gtttggatgt tcggcggagg gaccaagctg accgtcctag gtcagcccaa ggctgccccc     420
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<210> 30
<211> 1732
<212> DNA
<213> Homo sapiens

<400> 30
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taactcatgt aaacaagtaa gagtaacata acagtattac cctttcactg ttctcacagg    1620
acatgtacct aattatggta cttatttatg tagtcactgt atttctggat ttttaaatta    1680
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<210> 31
<211> 3259
<212> DNA
<213> Homo sapiens

<400> 31
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aaccgctgcg atcgcggagg cggcggccag gccgagaggc aggccgggca ggggtgtcgg    180
acgcagggcg ctgggccggg tttcggcttc ggccacagct ttttttctca aggtgcaatg    240
aaagccttcc acactttctg tgttgtcctt ctggtgtttg ggagtgtctc tgaagccaag    300
tttgatgatt ttgaggatga ggaggacata gtagagtatg atgataatga cttcgctgaa    360
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gatgatgaag atgagaccac tgtggagttg aagggcagg atgaaaacca agaaggagat    480
tttgaagatg cagataccca ggagggagat actgagagtg aaccatatga tgatgaagaa    540
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gggagtgggg tggtgggtat tttttgttga tgctttagtg caggcctgtt ctgaggcaat    2880
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gaccatggca gctaattttg taacttaagc attcatatga actacctatg gacatctatt    3240
aaagtgattg acaaaaaaa                                                  3259
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<210> 32
<211> 454
<212> DNA
<213> Homo sapiens

<400> 32

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attacctcca tctgcaacca gagctgctac caccactgtg cccgagcctg aattttcata     180
gttatattaa aaaaaatcaa ggtgctggga ttacaggcgt gagccaccgc gcccggctgt     240
agccctgtc tttattcctc ccctgtctaa cccgtcctca gcatgaatgc cagagttacc      300
tcttaaawta tgtcagggtg ctaggcacag tggctcatgc ctgtaatccc agctcttggg     360
aaggcagagg caggaggaca amttgagccc aggagtttga gacctgcttg gggaatgtag     420
tgagaccttg ttctccacaa aaaggaaaaa aaaa                                 454
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<210> 33
<211> 230
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (26)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (219)
<223> n equals a,t,g, or c

<400> 33

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gaagcaaacg agggaggaaa acaaagccac acccctgccc acagaggatg aacagaagg      120
gccgctgagg tcaggaaggc aaggttgcca ctaggtgtta ctgtggggcc cagatgccgc     180
catgctgttc acccttcaaa gggtggcatc tcagcccang cagtcctcct                230
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<210> 34
<211> 753
<212> DNA
<213> Homo sapiens

<400> 34

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gtgctattcg tcctcttagc gaatgtccag ggacctggtc tgactgattg gttatttccc     120
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aggagatgtc ccaaaatcag agaagaatgt gaattccaag aaagggatgt gtgtacaaag      180
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cttgatgtag taaaaaaaaa aaaaaaaaaa aaa                                   753


<210> 35
<211> 1022
<212> DNA
<213> Homo sapiens


<400> 35
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tc                                                                     1022


<210> 36
<211> 3044
<212> DNA
<213> Homo sapiens


<220>
<221> SITE
<222> (2383)
<223> n equals a,t,g, or c


<400> 36
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gccagaccgt gctgcaccgc gaggcgcagg gccacgagtc cgactgcttc tgcagctact    660
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aggagatctt cctgtggctt ggggaagctg caagtgagtg gaaggaggcg gtggcctggg   2340
gccaggagta cctgaagact cacccagcag ggaggagccc ggncacaccc atcgtgctgg   2400
tcaagcaggg ccatgagcct cccaccttca ttggatggtt cttcacttgg gacccctaca   2460
agtggactag ccacccatcc cacaaggaag tggtggatgg cagcccggca gcagcatcaa   2520
ccatctctga gataacagca gaagtcaaca acttccggct atccagatgg ccgggcaatg   2580
gcagggcagg tgccgtggcc ctgcaggccc tcaagggctc ccaggacagc tcagagaatg   2640
atctggtgcg aagccccaag tcggctggca gcagaaccag cagctccgtc agcagcacca   2700
gcgccacgat caacgggggc ctgcgccggg aacaactgat gcaccaggct gttgaggacc   2760
tgccagaggg cgtggaccct gcccgcaggg agttctatct ctcagactct gacttccaag   2820
atatctttgg gaaatccaag gaggaattct acagcatggc cacgtggagg cagcggcagg   2880
agaaaaagca gctgggcttc ttctgaaccc aagccctctc gactgccct atccctgga   2940
ccccaacata cctacaatgc tggggaggcc ctgcttccac tcccctcaga ggctttggt   3000
catcctctgc gtgtcagtaa aagcaggcag cccataaaaa aaaa              3044
```

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (530)
<223> n equals a,t,g, or c

<400> 37

```
ttcaaggatt ataatatgct gagtaaactt ttggcactaa ggaagccagc tacaggccac        60
gtaatgaaaa ctattcagaa aacagttcag caaatactac tatttgaata cagttcaaat       120
cgtatttata taaatactct gcctacatta tttaacccaa actggattat tcaccattct       180
ttgaagatgc cttgtgtttt ctgttatcta cttctgctcg tgcagtttac ttacaccttc       240
acccttttcaa atcctaactc ttcttcaagg cctgattcag attttaactt tttaaaggct      300
atctgaatca ttcaaggggag aagataccct ttctctcata aaaacactta gagcaaacta      360
ccactattaa atcacttatt gcatactgaa aaaaaaaaa aaaaaaactc gaaggggggn        420
ccggtaccca attcgcccta tagtgagtcg tattacaatt cactgggccg tcgttttaca       480
acgtcntgac tgggaaaacc ctggcgttac ccaacttaat cgccttgcan cacatccccc       540
t                                                                       541
```


<210> 38
<211> 1752
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (356)
<223> n equals a,t,g, or c

<400> 38

```
gtcggcggcg gcggcggcgg ttgaactgac tcggagcgag gagacccgag cgagcagacg        60
cggccctggc gcccgccctg cgcactcacc atggcgatgc atttcatctt ctcagataca       120
gcggtgcttc tgtttgattt ctggagtgtc cacagtcctg ctggcatggc cctttcggtg       180
ttggtgctcc tgcttctggc tgtactgtat gaaggcatca aggttggcaa agcaagctgc       240
tcaaccaggt actggtgaac ctgccaacct ccatcagcca gcagaccatc gcagagacag       300
acggggactc tgcaggctca gattcattcc ctgttggcag aacccaccac aggtgntatt       360
tgtgtcactt tggccagtct ctaatccatg tcatccaggt ggtcatcggc tacttcatca       420
tgctggccgt aatgtcctac aacacctgga ttttccttgg tgtggtcttg ggctctgctg       480
tgggctacta cctagcttac ccacttctca gcacagctta gctggtgagg aacgtgcagg       540
cactgaggct ggagggacat ggagccccct cttccagaca ctatacttcc aactgccctt       600
tcttctgatg gctattcctc caccttattc ccagcccctg gaaactttga gctgaagcca       660
gcacttgctc cctggagttc ggaagccatt gcagcaacct tccttctcag ccagcctaca       720
tagggcccag gcatggtctt gtgtcttaag acagctgctg tgaccaaagg gagaatggag       780
ataacagggg tggcagggtt actgagccca tgacaatgct tctctgtgac tcaaaccagg       840
aatttccaaa gatttcaagc caggagaag ggttcttggt gatgcaggc atggaacctg        900
gacaccctca gctctcctgc tttgtgcctt atctacagga gcatcgccca ttggacttcc       960
tgacctcttc tgtctttgag ggacagagac caagctagat ccttttttctc acctttctgc     1020
ctttggaaca catgaagatc atctcgtcta tggatcatgt tgacaaacta agtttttttt     1080
attttttccca ttgaactcct agttggcaat tttgcacatt catacaaaaa aattttttaat   1140
gaaatgattt cattgattca tgatggatgg cagaaactgc tgagacctat ttccctttct     1200
tggggagaga ataagtgaca gctgattaaa ggcagagaca caggactgct ttcaggctcc     1260
tggtttattc tctgatagac tgagctcctt ccaccagaag gcactgcctg caggaagaag     1320
awgatctgat ggccgtgggt gtctgggaag ctcttcgtgg cctcaatgcc ctcctttatc     1380
ctcatctttc ttctatgcag aacaaaaagc tgcatctaat aatgttcaat acttaatatt     1440
ctctatttat tacttactgc ttactcgtaa tgatctagtg gggaaacatg attcattcac     1500
ttaaaatact gattaagcca tggcaggtac tgactgaaga tgcaatccaa ccaaagccat     1560
tacatttttt gagttagatg ggactstctg gatagttgaa cctcttcact ttataaaaaa     1620
```

```
ggaaagagag aaaatcactg ctgtatacta aataccctcac agattagatg aaaagatggt      1680
tgtaagcttt gggaattaaa aacaaacaaa tacattttag taaatatata tttttaaata      1740
aaaaaaagaa aa                                                           1752
```

<210> 39
<211> 1907
<212> DNA
<213> Homo sapiens

<400> 39

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 agttcagggg cacaggggca caggcccacg actgcagcgg gatggaccag tactgcatcc        60
tgggccgcat cggggagggc gcccamggca tcgtcttcaa ggccaagcac gtggagactg       120
gcgagatagt tgccctcaag aaggtggccc taaggcggtt ggaagacggc ttccctaacc       180
aggccctgcg ggagattaag gctctgcagg aratggagga caatcagtat gtggtacaac       240
tgaaggctgt gttcccacac ggtggaggct ttgtgctggc ctttgagttc atgctgtcgg       300
atctggccga ggtggtgcgc catgcccaga ggccactagc ccaggcacag gtcaagagct       360
acctgcagat gctgctcaag ggtgtcgcct tctgccatgc caacaacatt gtacatcggg       420
acctgaaacc tgccaacctg ctcatcagcg cctcaggcca gctcaagata gcggactttg       480
gcctggctcg agtcttttcc ccagacggca gccgcctcta cacacaccag gtggccacca       540
ggagctcact gagctgccgg actacaacaa gatctccttt aaggagcagg tgcccatgcc       600
cctggaggag gtgctgcctg acgtctctcc ccaggcattg gatctgctgg gtcaattcct       660
tctctaccct cctcaccagc gcatcgcagc ttccaaggct ctcctccatc agtacttctt       720
cacagctccc ctgcctgccc atccatctga gctgccgatt cctcagcgtc taggggggacc       780
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tgaggagtcg ctgttgaacc cagagctgat tcggcccttc atcctggagg ggtgagaagt       900
tggccctggt cccgtctgcc tgctcctcag gaccactcag tccacctgtt cctctgccac       960
ctgcctggct tcacccctcca aggcctcccc atggccacag tgggcccaca ccacacccctg      1020
cccccttagcc cttgcgargg ttggtctcga ggcagaggtc atgttcccag ccaagagtat      1080
gagaacatcc agtcgagcag aggagattca tggcctgtgc tcggtgagcc ttaccttctg      1140
tgtgctactg acgtacccat caggacagtg agytctgctg ccagtcaagg cctgcatatg      1200
cagaatgacg atgcctgcct tggtgctgct tccccgagtg ctgcctcctg gtcaaggaga      1260
agtgcagaga gtaaggtgtc cttatgttgg aaactcaagt ggaaggaaga tttggtttgg      1320
ttttattctc agagccatta aacactagtt cagtatgtga gatatagatt ctaaaaacct      1380
caggtggctc tgccttatgt ctgttcctcc ttcatttctc tcaaggaaa tggctaaggt      1440
ggcattgtct catggctctc gtttttgggg tcatggggag ggtagcacca ggcatagcca      1500
cttttgccct gagggactcc tgtgtgcttc acatcactga gcactcattt agaagtgagg      1560
gagacagaag tctaggccca gggatggctc cagttgggga tccagcagga gaccctctgc      1620
acatgaggct ggtttaccaa catctactcc ctcaggatga gcgtgagcca gaagcagctg      1680
tgtatttaag gaaacaagcg ttcctggaat taatttataa atttaataaa tcccaatata      1740
atcccagcta gtgctttttc cttattataa tttgataagg tgattataaa agatacatgg      1800
aaggaagtgg aaccagatgc agaagaggaa atgatggaag gacttatggt atcagatacc      1860
aatatttaaa agtttgtata ataataaaga gtatgattgt ggttcaa                    1907
```

<210> 40
<211> 2350
<212> DNA
<213> Homo sapiens

<400> 40

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 gaagaagagc gacctgccct aatggatgac agaaagcaca aaatttgtag catgtatgac        60
aacttaaggg ggaaattgcc tggacaagag aggcctagtg atgaccactt tgtacagatc       120
atgtgtatcc gaaaagggaa gagaatggtt gcccgtattc ttcctttcct ctccacagag       180
caagcagctg acattctcat gacaacagcc aggaacctcc ctttccttat caagaaggat       240
gcacaagatg aggtgctgcc atgcttactg agtcccttct ctctccttct ctatcatctt       300
ccatcagtga gtatcaccag ccttttgcga cataatgaac ctacctcaaa gtgcagctac       360
accagcactc tccaatcctc acctcactgc tgtgctccag aacaagtttg gcctgtcact       420
```

```
gstcctcatc ctcctgagcc gtggtgaaga cctacagagt tcagaccctg ctacagaatc    480
aacacaaaat aatcagtgga cggaggtgat gttcatggca acacgagaac ttctgcggat    540
tccccaagca gccctggcca agccaatctc tatacctaca aacctagtgt ccctcttttc    600
tcgctatgtt gaccggcaga aactgaactt gctggagasa aaactgcagc tagttcaggg    660
gatacgataa aagatctcca aatgtgtcct gtacctcctt ttggctgcca cctgcactgc    720
tgccatcacc aatggrgtgt ttttaatgag ggaaggaagg tagctttttc cccaaagcaa    780
agkmttgtgg gatcgattcc tgtttacagg ggttgtctct ctaaatgtca gatatttccc    840
cactgctcta tgaaatttgg ctgggtgata cttctgctgg tttctttacc ttctgtgtta    900
cagttctgca tgtcctactt ttactcagtt ctgttttgca tttwctttgc cctagagaca    960
caagtgtaat ctctcccttt atccctccac tactccacct cagagtagat tgtagcctgc   1020
caaaggattc cttccctcat cctattgaag ttgttttttc attgccccat attaatatga   1080
ctatagaaga gccaattaag tagaaatcaa gatatacaca cacacataga tacacacaca   1140
cacaccccat acatgtattt atgtggtctt cagagggtcc ttaaagaatg aattttagat   1200
tgaaaaatat ttagttgtct cattacctct tctaaacaca aaccagctga tgtatttttaa   1260
tctgtttctg ttctatcttg taattaattt ggtgggttct acttgtttta acataaataa   1320
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ctgagaagtc cttttttcttc ttcccacctt tatttcctta gtttctgtcc accttaatcg   1440
aaacaacaca tggttatgtc ttttttcctgc tacaactaca gggtacttga gcctttcccc   1500
tcaagtgcat tcgaagtcac ccaggatgat cctcactagt agcctgcttt ggcagtgtgg   1560
cttttttgcac acttgccctg tcttcctgag actacttcag taagccatgc ttccttcttc   1620
cccactttta tttggtgtca tgaatagaaa cttccaaatg taaccatgga agctaagttt   1680
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agcctgccat gatctttctc acttactcct ctcccattca gcaatcaacc agactaagga   1860
gttttgatcc ctagtgatta cagccctgaa gaaaattaaa tctgaattaa ttttacatgg   1920
ccttcgtgat ctttctgctg ttcttacttt ttcgaatgta gttggggggt gggagggaca   1980
ggttatggta tttaaagaga ataaacattt tgcacataca tgtattgtac aacagtaaga   2040
tcctctgtta aaaccagctg tcctgttctc catctccatt tcttcccatg ctgtaacccc   2100
aggctccacc agctgttccc cagtgatgtt acctagcttc cctctaccgt tgtctactga   2160
ccatttccac tacatgcctt tcctaccttc ccttcacaac caatcaagtg aatacttgat   2220
tattatctct tccttactgt gctttatctt ttttgtttgg attggttcta attaatgaaa   2280
ataaaagttt ctaaatttac attttttatag ggtattgtaa ataaaaacaa attgtatact   2340
taaaaaaaaa                                                          2350
```

<210> 41
<211> 1114
<212> DNA
<213> Homo sapiens

<400> 41
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gggcagacga tgctgaagat gctctccttt aagctgctgc tgctggccgt ggctctgggc     60
ttctttgaag gagatgctaa gtttggggaa agaaacgaag ggagcggaca aggaggagaa    120
ggtgcctgaa tgggaacccc ccgaagcgcc tgaaaaggag agacaggagg atgatgtccc    180
agctggagct gctgagtggg ggagagatgc tgtgcggtgg cttctaccct cggctgtcct    240
gctgcctgcg gagtgacagc ccggggctag ggcgcctgga gaataagata ttttctgtta    300
ccaacaacac agaatgtggg aagttactgg aggaaatcaa atgtgcactt tgctctccac    360
attctcaaag cctgttccac tcacctgaga gagaagtctt ggaaagagac ctagtacttc    420
ctctgctctg caaagactat tgcaaagaat tcttttacac ttgccgaggc catattccag    480
gtttccttca aacaactgcg gatgagtttt gcttttacta tgcaagaaaa gatggtgggt    540
tgtgctttcc agattttcca agaaaacaag tcagaggacc agcatctaac tacttggacc    600
agatggaaga atatgacaaa gtggaagaga tcagcagaaa gcacaaacac aactgcttct    660
gtattcagga ggttgtgagt gggctgcggc agcccgttgg tgccctgcat agtggggatg    720
gctcgcaacg tctcttcatt ctggaaaaag aaggttatgt gaagatactt acccctgaag    780
gagaaatttt caaggagcct tatttggaca ttcacaaact tgttcaaagt ggaataaagg    840
ttggcttttt aaatttttatt tattttttgtg ctggctacgt taattttatt ttagtgttac    900
cttcctcact gaaggtatтt ctttgtaata aaagaaagaa tcttgcagga gaaaataagg    960
gggcaacata agaaacaata attatggcac ctgaattagg acagtgacat taaakgttgg   1020
```

```
ctktttawat tttaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa        1080
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa                                    1114
```

<210> 42
<211> 1652
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1640)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1644)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1648)
<223> n equals a,t,g, or c

<400> 42
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ttggcacctc taattgctct cgtgtattcg gtgccgcgac tttcacgatg gctcgcccaa          60
ccttactacc ttctgtcggc cctgctctct gctgccttcc tactcgtgag gaaactgccg         120
ccgctctgcc acggtctgcc cacccaacgc gaagacggta acccgtgtga ctttgactgg         180
agagaagtgg agatcctgat gtttctcagt gccattgtga tgatgaagaa ccgcagatcc         240
atcactgtgg agcaacatat aggcaacatt ttcatgttta gtaaagtggc caacacaatt         300
cttttcttcc gcttggatat tcgcatgggc ctactttaca tcacactctg catagtgttc         360
ctgatgacgt gcaaaccccc cctatatatg ggscctgagt atatcaagta cttcaatgat         420
aaaaccattg atgaggaact agaacgggac aagagggtca cttggattgt ggagttcttt         480
gccaattggt ctaatgactg ccaatcattt gccctatct atgctgacct ctcccttaaa         540
tacaactgta cagggctaaa ttttgggaag gtggatgttg gacgctatac tgatgttagt         600
acgcggtaca aagtgagcac atcacccctc accaagcaac tccctaccct gatcctgttc         660
caaggtggca aggaggcaat gcggcggcca cagattgaca agaaaggacg ggctgtctca         720
tggaccttct ctgaggagaa tgtgatccga gaatttaact taaatgagct ataccagcgg         780
gccaagaaac tatcaaaggc tggagacaat atccctgagg agcagcctgt ggcttcaacc         840
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gcttcctctc ctgtcaattc caggctcttt ccataaccac aagcctgagg ctgcagcytt         960
ttatttatgt tttccctttg gctgtgactg ggtggggcag catgcagctt ctgattttaa        1020
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gtttcactgg agcaagaaag agatctcata ggacggaggg ggaaatggtt tccctccaag        1140
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aactctgtgg tttcatcatt ccttcttagt tgacctgcac agcttggtta gacctagatt        1260
taaccctaag gtaagatgct ggggtataga acgctaagaa ttttcccca aggactcttg         1320
cttccttaag cccttctggc ttcgtttatg gtcttcatta aaagtataag cctaactttg        1380
tcgctagtcc taaggagaaa cctttaacca caaagttttt atcattgaag acaatattga        1440
acaacccccct attttgtggg gattgagaag gggtgaatag aggcttgaga ctttcctttg       1500
tgtggtagga cttggaggag aaatcccctg gactttcact aaccctctga catactcccc        1560
acacccagtt gatggctttc cgtaataaaa agattgggat ttccttttga aaaaaaaaa        1620
aaaaggggg ccgctctagn ggtnccangc tt                                      1652
```

<210> 43
<211> 1473
<212> DNA

24

<213> Homo sapiens

<400> 43
```
ggcacgagcc gcggggctgt cacctccgcc tctgctcccc gacccggcca tgcgcggcct      60
cgggctctgg ctgctgggcg cgatgatgct gcctgcgatt gcccccagcc ggccctgggc     120
cctcatggag cagtatgagg tcgtgttgcc gtggcgtctg ccaggccccc gagtccgccg     180
agctctgccc tcccacttgg gcctgcaccc agagagggtg agctacgtcc ttggggccac     240
agggcacaac ttcaccctcc acctgcggaa gaacagggac ctgctgggct ccggctacac     300
agagacctat acggctgcca atggctccga ggtgacggag cagcctcgcg ggcaggacca     360
ctgcttctac cagggccact tagagggtac cggactcagc cgccagcctc agcacctgtg     420
ccggcctcag gggtttcttc caggtggggt cagacctgca cctgatcgag cccctggatg     480
aaggtggcga gggcggacgg cacgccgtgt accaggctga gcacctgctg cagacggccg     540
ggacctgcgg ggtcagcgac gacagcctgg gcagcctcct gggaccccgg acggcagccg     600
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gggtgctgga ggtggtgaat cacgtggaca agctatatca gaaactcaac ttccgtgtgg     780
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gggtgtccgc catgtgctcc cacagctcag gggctgtgaa ccaggaccac agcaagaacc    1020
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atgagaacgt ccagggctgc cgctgccagg aaacgcttcg aggccggccg ctgcatcatg    1140
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ctggagagct ttttggagcg gccgcagtcg gtgtgcctcg ccaacgcccc tgacctcagc    1260
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gaggggccc agtgtgcgca cggtacctgc tgccaggagt gcaaggtgaa gccggctggt    1440
gagctgtgcc gtcccaagaa ggacatgtgt gac                                 1473
```

<210> 44
<211> 772
<212> DNA
<213> Homo sapiens

<400> 44
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tcggtttctc tctttgcagg agcaccggca gcaccagtgt gtgaggggag caggcagcgg      60
tcctagccag ttccttgatc ctgccagacc acccagcccc tggcacagag ctgctccaca     120
ggcaccatga ggatcatgct gctattcaca gccatcctgg ccttcagcct agctcagagc     180
tttgggggctg tctgtaagga gccacaggag gaggtggttc ctggcggggg ccgcagcaag     240
agggatccag atctctacca gctgctccag agactcttca aaagccactc atctctggag     300
ggattgctca aagccctgag ccaggytagc acagatccta aggaatcaac atctcccgag     360
aaacgtgaca tgcatgactt ctttgtggga yttatgggca agaggagcgt ccagccagac     420
tctcctacgg atgtgaatca agagaacgtc cccagctttg gcatcctcaa gtatccccccg     480
agagcagaat aggtactcca cttccggact cctggactgc attaggaaga cctctttccc     540
tgtcccaatc cccaggtgcg cacgctcctg ttaccctttc tcttccctgt tcttgtaaca     600
ttcttgtgct ttgactcctt ctccatcttt tctacctgac cctggtgtgg aaactgcata     660
gtgaatatcc ccaaccccaa tgggcattga ctgtagaata ccctagagtt cctgtagtgt     720
cctacattaa aaatataatg tctctctcta ttcctcaaca aataaggat tt             772
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<210> 45
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (15)
<223> n equals a,t,g, or c

<400> 45
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aattcggcac gagcntggaa tgggaggcta cggaagagat ggaatggata atcagggagg      60
ctatggwtca kttggaagaw tgggaatggg gaacaattac agtggaggat atggtactcc     120
tgatggtttg ggtggttatg gccgtggtgg tggaggcagt ggaggttact atgggcaagg     180
cggcatgagt ggaggtggat ggcgtgggat gtactgaaag caaaaacacc aacatacaag     240
tcttgacaac agcatctggt ctactagact ttcttacaga tttaatttct tttgtatttt     300
aagaacttta taatgactga aggaatgtgt tttcaaaata ttatttggta aagcaacaga     360
ttgtgatggg gaaaaaaaaa aaaaaagaa ttcaaaaagc ttc                        403
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<210> 46
<211> 928
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (78)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (148)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (163)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (532)
<223> n equals a,t,g, or c

<400> 46
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cctctcgcta attaacccaa ttggccaaaa gggggatgtt gcctgcaang ccaattaaat      60
ttgggtaaac ccccaggntt ttccccaagt ccacgacgtt gtaaaaaacg acggcccaat     120
tgaaattgtw aaaaacsaac ycactaanag ggccaawtgg gtnacsgggc cccccccga     180
rtttttttt ttttttttt ctgrttgwca atgagratat ttattgaggg tttattgagt     240
gcagggagaa gggctkgatg mcttgggrtg ggaggagaga cccctcccct gggatcctgc     300
agctcyagkc tcccgtgggt ggggggtkagr gttgrgaacc tatgaacatt ctgtaggggc     360
cactgtcttc tccacggtgc tcccttcatg cgtgacctgg cagctgtagc ttctgtggga     420
cttccactgc tcrggcgtca ggctcaggta gctgctggcc gcgtacttgt tgttgctytg     480
tttggagggt ktggtggtct ccactcccgc cttgacgggg ctgcyatctg cnttccaggc     540
cactgtcacr gctcccgggt agaagtcact katsagacac acyagtgtgg ccttgttggc     600
ttgragctcc tcagaggagg gcgggaacag agtgacmgwg gggkyrgcct tgggctgacc     660
taggacggtg accttggtcc cagttccgaa gacmccatga ttaccactgc tgtctgttga     720
gtaacagtag tagtcagccg catcctccac ctgggcccca ctgatagtca aggtggccac     780
tgtccctgar ctggagccar agaatctcts agggatccgg agggtcgttt gttgtcctca     840
```

```
tagatgacca ggcacagggg cctggcctga cttctgktgg taccaatawa catatttctt      900
cggcaatgca tctccaggag caggtgat                                          928
```

<210> 47
<211> 885
<212> DNA
<213> Homo sapiens

<400> 47
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ggcacgaggg aatctgcacc atgccctggg ttctgctcct cctgaccctc ctcactcact       60
ctgcagtgtc agtggtccag gcagggctga ctcagccccc ctcggtgtcc aaggacttga      120
gacagaccgc cacactcacc tgcaccggga acaacaacaa tgttggcgac caaggagcag      180
cttggctgca gcagcaccag ggccaccctc ccaaactcct gtcctacagg aataataacc      240
ggccctcagg gatctcagag agattatctg catccaggtc aggagccaca tcctccctga      300
ccattactgg actccagcct gaggacgagg ctgactatta ctgcgcagca tatgacagca      360
gcctcgcagt ttggatgttc ggcggaggga ccaagctgac cgtcctaggt cagcccaagg      420
ctgccccctc ggtcactctg ttcccaccct cctctgagga gcttcaagcc aacaaggcca      480
cactggtgtg tctcataagt gacttctacc cgggagccgt gacagtggcc tggaaggcag      540
atagcagccc cgtcaaggcg ggagtggaga ccaccacacc ctccaaacaa agcaacaaca      600
agtacgcggc cagcagctac ctgagcctga cgcctgagca gtggaagtcc cacaaaagct      660
acagctgcca ggtcacgcat gaagggagca ccgtggagaa gacagtggcc cctacagaat      720
gttcataggt tctcatccct cacccccocac cacgggagac tagagctgca ggatcccagg      780
ggaggggtct ctcctcccac cccaaggcat caagcccttc tccctgcact caataaaccc      840
tcaataaata ttctcattgt caatcagaaa aaaaaaaaaa aaaaa                      885
```

<210> 48
<211> 2315
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2264)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2312)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2315)
<223> n equals a,t,g, or c

<400> 48
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tttttttttt tttgatttt caaaattaac tttttattta atttaaaaat ccagaaatac       60
agtgactaca taaataagta ccataattag gtacatgtcc tgtgagaaca gtgaaagggt      120
aatactgtta tgttactctt acttgtttac atgagttaac tagaaaatgg ctacaactgc      180
taaatgatgc ttatggtctt tgttgttcca agtgtttatg atacaaataa atacacaaga      240
agaaccacat ccattcttct ctactaacta caggcagctt ggcctcttta ccctatgtcc      300
tattctctac acaacaccaa acactggagg gtttctactt tgacttaaca cagctccccca     360
gctcctgctt cccacagcat tttgcaaagg tgtgtcccag cacctggagg caggagtata      420
tctagggaaa ctctctgcgt gttctcttaa ggctaagctt tcagagaaca cctgggtggg      480
aaggctttgg gatgaatcat ccagaaggag aaacacctct ttgccttagg atctagttac      540
tagtctccac attatggaat cactgccacc tctgggacgg agggagcagc cgcataacac      600
```

```
cttcccccct ttaccacaca cacacacaca cacacacaca cacacacaaa ggagcaaatt        660
atgctgtgca tggcgtgaat aattgactgc atttgagttt ggagttttag ggcactgttg        720
acttaagcaa aataagcctg cagtccagct gcagcttgag tttttcttgct ttaccctatc       780
caatactgtc tgtcttgcct aacagtggcc cttttcagat ctctccaggt acaaaacctt        840
gactaaatct tcaagctctg ttctgcatac acgacttgaa cacatctggc tgatctgagc        900
ttctccttcg gtgaagatct tccactggct cagggttgtt ctggtcacca gcttgaagtg        960
aggaagctcc tcaaacatcc tcttggagat cttctcaata tggaagtgct ggagaatgcc       1020
ctttcgaata gtccaaacgt ggacctctac ctgaggtggt ctctcagtct ccagtgctat       1080
ttttctggtt gtctccccat cctccatgaa tacagactca tacacaggca tcgtttcttc       1140
cccgcagaag tagcctttat tgtcaaagct ttggcctgga agttcttctg dacacacctt       1200
gcagcatttt ccgtctattt tttgaggata cttgcagggg tatcgattgg ggcagtggat       1260
tttcttacac tcttgcttgg tgacattaca agtacatagc acacactcca caatgccaaa       1320
tgcccggagg tttgggtgcc aggactcgcc atgagaatag gtctttccat tggaaacaca       1380
cacttgtcca tgcttgtgtt tgttattgat dacaatttgc acaatggttc ctgatgcttg       1440
ctgggaatcc ataagagctc cccggtgact tctggcccca ggaaagcggg acagacctcc       1500
agcctgtcgg cttggtggag gatcatagtg agagcggtgg taagaatgtc ttgcttctct       1560
gttggcaggt tgccggaaga tatcaccatc agaatgttcc catgacagtt ctccatctcc       1620
tctgcatacc cggcagcagg aatctggaac agagactggg aaggcacagg ttaatttggg       1680
gcaagtcttg agaccacaat acacgtttcc ctccgaacag ctgcactggg tgcattgatt       1740
gggttgccga ttctgaaaga gcccttcagc tacgaacagc tctccatgtt ggtaagttgt       1800
cccattgtac tcgcaagact tgctggtcac cttattgttc actgggggta aggagtcttc       1860
tgggcagcga gggcagcaca gatgaggaat atgcacagga gaaaggcaat gaacatttgg       1920
acatctgact cggctgcaaa gcacattccc attctctgag cagatgcagt tcacgcagta       1980
aaccaaccca taaggttcca ggtaaggatg ccatctctca cccactctgt acttcttgtc       2040
ttgaaacatg caatatgtct ctgaatgttt tacttgctct gtttkgcctc cttctagcaa       2100
aagaaagctc gtgccgaatt cctgcagccc gggggggatcc actagttcta gagcggccgc       2160
caccgcggtg ggagctccag cttttggttc cctttagtga ggggttaatt tcgagcttgg       2220
cggtaatcat gggtcatagc ttgtttcctg gtgttgaaat tggntatccc gctcacaaat       2280
tccacaacaa caatacgagc cggaagcata angtn                                   2315


<210> 49
<211> 3175
<212> DNA
<213> Homo sapiens

<400> 49
tttttttgt caatcacttt aatagatgtc cataggtagt tcatatgaat gcttaagtta         60
caaaattagc tgccatggtc caaatgtatg ggactttagg aaagcttttc ttactcaaaa        120
gataactaag actatcaact ttgatttcta aaatgtaatt taaaggtttg taaaacaagg        180
ccactactat aattatataa tattaaagta attaagtttt atgttagtta ttttaataac        240
aacttcatga actgttaaaa atattacatt tgcatctctc agtttacata tttctgtatt        300
aacttggaga aaaacccatg tgaaaagttt ccatgcagtt acaaaggcag cagcacatgc        360
tgttttcaca gcaacttgtt attgcctcag aacaggcctg cactaaagca tcaacaaaaa        420
atacccacca ccccactccc accagaaaac ccaacccttt cccatccccg gcaaaaatta        480
cctggtacaa gcaatgacct aaaaatgctt tcttggtaag aagcatttat aaaatgcaga        540
gatctgaaca agctaagtgc tcgtgcagat acatgggcct ctcctccaag agttggttcc        600
gcaagaggtg gaaagaactc tcaatagttt aggaaagctc attttcaaaa gtatacttac        660
acatattcat ggccatttct ttgaaagaac atacccagcc tcaactgtgg aaaagataaa        720
agcagaggga gaagcaacgg cacacagcca taatatagag aacagagctt ctccatgaac        780
atccaccagg ctgcagcaac caagaaggaa aaaacatttg tgatttcaca cagaccaatg        840
atcttaccta ggtgaagcat taattttttca tgcatttgtt actcaagaaa ataaacatac        900
aaccacttaa aatacagcat tcacgttgtc actggttcgt ggtatcaggt aaggaaaaaa        960
tgatgctcct gtccctagaa ttttccatgt acatgtcagt atcctaatgc ctacagactt       1020
cctattaatt ttgttatcag catctcccac ctaaaaacat acactacatt atgttctggg       1080
tccctgaaat agaaacatc aagcaatgtt tattgtgcaa ttccaatcat tatttgcaga       1140
atcttggttt agagtcagtc tttatagcca tttcaactgc ttggtttaaa caaaaagcaa       1200
caatctggtt atctacctat aaatttcayg gtatttcttt aaacactgaa gtactaaaag       1260
```

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cactgatgat ttgtattata attttttaaaa tatttaaaac ctacacagat ttcatagatc    1320
attcctttta taaaataatc aaaataattt gattatctgg aaaaaaaaat tcttgaaaca    1380
gagccctttc caggtatctt caatctctgt aaaaccccaa accccaaaca gagtagatga    1440
tgaaataagg atttctcagt tgcccaagac tgtctgaaat ttaaggttga gaaatggact    1500
ggcgttttc atgtttcctg tgaattcaga gcttacaggt ggcatcagaa ctcaaatctc    1560
tgggatggct ttacatggct ttcactttga tttgtttcat tttcatttgc ttcttttcca    1620
acttcttttk ctcacgcctc aatgcagcct cctccagcct cgcgctgttc tcaggatctt    1680
cctcattcat gattcgctcc ttctctgctc tttttttctc ctcccgccga gactgtgctg    1740
cttcctgtct ttgcacatgt gtcagtttca agaagttctc ttctactcgg gcacggttct    1800
tatctgcttt ttgtttgcct tctctgttga gtcggaactt tttggcttta tcaatagaat    1860
aaatcaccat gttcatcagg ggtagcagtg cctccatatc ctttgggtaa gtgttacctg    1920
agccaggcac attaaatgta aacaacagtg tcctcttagt gtcaggtagc tttaaaggct    1980
gaccttcctc ttgcataatt tttggaccag agaactggtc tgaaaaatga acagattcaa    2040
tcttgtcagc atagtgtgta agaaagtgaa ccatctttgt atccatcatt ccgtctgtga    2100
cttctcccat ctctgacagg atggccaaag agtccggcag tccatacttt gctccagact    2160
taggtttatc actacaaaac tcactcaaat cctgcatctc tttctgtagt cgcaccaagg    2220
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tagttccatc atcccccact aaagtaaagt tgctctccaa aagctcccta tgagtgttaa    2520
accaggcctg tgcaaggcga ctgtttttat tcttcccaat gatgtaattc atgatataag    2580
caagcagacc agtcaccatc aaaatttcta gataataact ctcccagctg ttctggaggt    2640
gtgcaggaac atcaacaatc gttattgggt ctttattttt gctagaagaa gtatctggtt    2700
tgtcttcata accttcaaat tcttcatcat catatggttc actctcagta tctccctcct    2760
gggtatctgc atcttcaaaa tctccttctt ggttttcatc ctgcccttcc aactccacag    2820
tggtctcatc ttcatcatct tcagtgatta tgacccgttg aggagattca gtaacagagt    2880
cttccatgac atcctcaaat tcagcgaagt cattatcatc atactctact atgtcctcct    2940
catcctcaaa atcatcaaac ttggcttcag agacactccc aaacaccaga aggacaacac    3000
agaaagtgtg gaaggctttc attgcacctt gagaaaaaaa gctgtggccg aagccgaaac    3060
ccggcccagc gccctgcgtc cgacacccct gcccggcctg ctctcggcct ggccgccgcc    3120
tccgcgatcg cagcggtttt actgccccgg atgcctctag gacgcagcca gaacc        3175
```

<210> 50
<211> 783
<212> DNA
<213> Homo sapiens

<400> 50
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ggcacgcgga aaggctggcc tctcttcamc atgggmtctt ctggactttt gagcctcctg     60
gtgctattcg tcctcttagc gaatgtccag ggacctggtc tgactgattg gttatttccc    120
aggagatgtc ccaaaatcag agaagaatgt gaattccaag aaagggatgt gtgtacaaag    180
gacagacaat gccaggacaa caagaagtgt tgtgtcttca gctgcggaaa aaaatgttta    240
gatctcaaac aagatgtatg cgaaatgcca aaagaaactg gcccctgcct ggcttatttt    300
cttcattggt ggtatgacaa gaaagataat acttgctcca tgtttgtcta tggtggctgc    360
caggggaaac aataacaact tccaatccaa agccaactgc ctgaacacct gcaagaataa    420
acgctttccc tgattggata aggatgcact ggaagaactg ccagaatgtg gctcatgctc    480
tgagtactgt tcctgtacct gactgatgct ccagactggc ttccagtttc actctcagca    540
ttccaagatc ttagcccttc ccagaacaga acgcttgcat ctacctcctc ttcctccatc    600
tttggctctt ttgatgcaca atatccatcc gttttgattt catctttatg tccccttttat    660
ctccaacttc tagaactccc agtttatacc tgtgtcactc tcaattttttt ccagtaaagt    720
acttgatgtw gaaaaaaaaa aaaaaaaaaa aaaaccggca cgaggggggg cccggtaccc    780
aat                                                                  783
```

<210> 51
<211> 3030

<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (60)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2388)
<223> n equals a,t,g, or c

<400> 51

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ctctaagaac ctagtggatc cccccggcct gcaggaattc gggcacggag gggagacttn     60
ctgtggctaa gggagggcgg gaagggccct ctgtggggct gccattttgg ctgggaccta    120
aatgcagtaa aggagcagct acgggaatat agagagtggg gcttccaggc agagaagcct    180
gcagtgcaaa ggtctgcaga caacgacctg ggcgtcttca agggacacaa ggaatcatat    240
tgccagaaca cattgtacag gtagccaggt gtcggtctcc agcctgagaa ctctggctgt    300
tgttccttgt gtcgtcccat attcctgcct ggcctgcgat ggacatcagc aagggcctcc    360
caggcatgca gggaggcctc cacatatgga tctctgagaa ccggaagatg gtgccggtac    420
ccgagggggc ttacgggaac ttttttcgagg aacactgcta tgtcatcctc cacgtccccc    480
agagcccgaa ggycacgcag ggggcgtcca gcgacctgca ctactgggtc gggaagcagg    540
cgggtgcgga agcgcagggc gctgcggagg ccttccagca gcgcctacag gacgagctgg    600
ggggccagac cgtgctgcac cgcgaggcgc agggccacga gtccgactgc ttctgcagct    660
acttccgccc gggaatcatc tacaggaagg gaggcctagc atctgacctc aagcatgtgg    720
agaccaactt gttcaacatc cagcgactgc tgcacatcaa agggaggaag cacgtgtctg    780
ccactgaggt ggagctctcc tggaacagct ttaataaggg tgacatcttc ctgctggacc    840
taggcaagat gatgattcag tggaatgggc ccaagaccag catttctgag aaggctcggg    900
ggctggycctt gacctacagc ctccgggaca gggaacgtgg tggtggtcgt gcacagattg    960
gtgtggtgga tgatgaggcc aaagcccgg acctcatgca gatcatggag gctgtgctgg   1020
gccgcagggt gggcagmctg cgtgycgcca cgcccagcaa ggatatcaac cagctgcaga   1080
aggccaatgt tcgcctgtac catgtctatg agaagggcaa agacctggtg gtcctggagt   1140
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agggtggctt caagatctat gtgtggcagg gacgcatgtc tagcctccag gagagaaagg   1260
ctgccttcag ccgggctgtg ggcttcatcc aggccaaggg ctacccgacc tacaccaacg   1320
tggaggtggt gaacgacggc gccgagtcgg ccgcgttcaa gcagctcttc cggacttggt   1380
ctgagaagcg gcgcaggaac cagaagmtcg gcgggaggga taaatcgatt catgtaaagc   1440
tggacgtggg caagctgcac acccagccta agttagcggc ccagctcagg atggtggacg   1500
acggctctgg gaaggtggag gtgtggtgca tccaggactt acacaggcag cccgtggacc   1560
ccaagcgtca tggacagctg tgtgcaggca actgctacct tgtgctctac acataccaga   1620
ggctgggccg tgtccagtac atcctgtacc tatggcaggg ccaccaggcc actgcggatg   1680
agattgaggc cctgaacagc aacgctgagg aactagatgt catgtatggt ggcgtcctag   1740
tacaggagca tgtgaccatg ggcagcgagc ccccccactt cctcgccatc ttccagggcc   1800
agctggtgat cttccaggag agagctgggc accacggaaa ggggcagtca gcatccacca   1860
caaggctttt ccaagtgcaa ggcactgaca gccacaacac caggaccatg gaggtgccag   1920
cccgtgcctc atccctcaac tccagtgaca tcttcttgct ggtcacagcc agcgtctgct   1980
acctctggtt tgggaaaggg ctgtaatggt gatcagcgtg agatggcacg ggtggtggtc   2040
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tgggaggccc tgggaggccg gggccccta cccagcaac aagaggctcc ctgaggaggt   2160
ccccagcttc cagccacgac tgtttgagtg ctccagccac atgggctgcc tggtcctcgc   2220
agaagtgggg ttcttcagcc aggaggacct ggacaagtat gacatcatgt tactggacac   2280
ctggcaggag atcttcctgt ggcttgggga agctgcaagt gagtggaagg aggcggtggc   2340
ctggggccag gagtacctga agactcaccc agcagggagg agcccggnca cacccatcgt   2400
gctggtcaag cagggscatg agcctcccac cttcattgga tggttcttca cttgggaccc   2460
ctacaagtgg actagccacc catcccacaa ggaagtggtg gatggcagcc cggcagcagc   2520
atcaaccatc tctgagataa cagcagaagt caacaacttc cggctatcca gatggccggg   2580
caatggcagg gcaggtgccg tggccctgca ggccctcaag ggctcccagg acagctcaga   2640
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```
gaatgatytg gtgcgaagcc ccaagtcggc tggcagcaga accagcagct ccgtcagcag      2700
caccagcgcc acgatcaacg ggggcctgcg ccgggaacaa ctgatgcacc aggctgttga      2760
ggacctgcca gagggcgtgg accctgcccg cagggagttc tatctctcag actctgactt      2820
ccaagatatc tttgggaaat ccaaggagga attctacagc atggccacgt ggaggcagcg      2880
gcaggagaaa aagcagctgg gcttcttctg aacccaagcc ctctcgactg cccctatccc      2940
ctggacccca acatacctac aatgctgggg aggccctgct tccactcccc tcagaggctt      3000
ttggtcatcc tctgcgtgtc agtaaaagca                                      3030
```

<210> 52
<211> 61
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 52

```
Met Glu His Ala Ala Gly Leu Pro Val Thr Arg His Pro Leu Ala Leu
 1               5                  10                  15

Leu Leu Ala Leu Cys Pro Gly Pro Phe Pro Ala Leu Leu Leu Pro Leu
            20                  25                  30

Leu Pro Trp Gly Tyr Pro Leu Ala Pro Pro Gly Leu Cys Lys Leu Pro
        35                  40                  45

Gln Gly Ala Pro Leu Pro Cys Ser Ser Xaa Leu Thr Ser
    50                  55                  60
```

<210> 53
<211> 243
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 53

```
Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala Xaa Gly
 1               5                  10                  15

Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Val Ala Leu
            20                  25                  30

Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala
        35                  40                  45
```

Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val
   50   55   60

Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Gly Phe Val Leu Ala
65   70   75   80

Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln
            85   90   95

Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu
          100   105   110

Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu
          115   120   125

Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala
    130   135   140

Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr
145   150   155   160

Thr His Gln Val Ala Thr Arg Ser Ser Leu Ser Cys Arg Thr Thr Thr
            165   170   175

Arg Ser Pro Leu Arg Ser Arg Cys Pro Cys Pro Trp Arg Xaa Cys Cys
          180   185   190

Leu Thr Ser Leu Pro Arg His Trp Ile Cys Trp Val Asn Ser Phe Ser
          195   200   205

Thr Leu Leu Thr Ser Ala Ser Gln Leu Pro Arg Leu Ser Ser Ile Ser
    210   215   220

Thr Ser Ser Gln Leu Pro Cys Leu Pro Ile His Leu Ser Cys Arg Phe
225   230   235   240

Leu Ser Val

<210> 54
<211> 65
<212> PRT
<213> Homo sapiens

<400> 54
Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
  1   5   10   15

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro
          20   25   30

Gly Ser Gln Gly Leu Gly Leu Asn Asn Cys Arg Ala Ala Cys His Asp
        35   40   45

Leu Ser His Leu Leu Leu Ser His Ser Ala Ile Asn Gln Thr Lys Glu
    50   55   60

Phe
 65

<210> 55
<211> 37
<212> PRT
<213> Homo sapiens

<400> 55
Met Leu Ala Arg Lys Ala Glu Arg Gly Ser Met Gly Thr Ala Arg Asp
 1   5   10   15

Ser His Ile Leu Leu Val Cys Ser Val Val His Pro Ala Ser Ala Gln
            20   25   30

Pro Val Tyr Thr Val
        35

<210> 56
<211> 317
<212> PRT
<213> Homo sapiens

<400> 56
Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe
 1   5   10   15

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Ala Arg
            20   25   30

Arg Arg Arg Cys Leu Asn Gly Asn Pro Pro Lys Arg Leu Lys Arg Arg
        35   40   45

Asp Arg Arg Met Met Ser Gln Leu Glu Leu Leu Ser Gly Gly Glu Met
    50   55   60

Leu Cys Gly Gly Phe Tyr Pro Arg Leu Ser Cys Cys Leu Arg Ser Asp
 65   70   75   80

Ser Pro Gly Leu Gly Arg Leu Glu Asn Lys Ile Phe Ser Val Thr Asn
            85   90   95

Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile Lys Cys Ala Leu Cys
            100   105   110

Ser Pro His Ser Gln Ser Leu Phe His Ser Pro Glu Arg Glu Val Leu
            115   120   125

Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys Asp Tyr Cys Lys Glu
    130   135   140

Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly Phe Leu Gln Thr Thr
 145   150   155   160

Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys Asp Gly Gly Leu Cys
            165   170   175

Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly Pro Ala Ser Asn Tyr
         180   185   190

Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu Glu Ile Ser Arg Lys
         195   200   205

His Lys His Asn Cys Phe Cys Ile Gln Glu Val Val Ser Gly Leu Arg
         210   215   220

Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly Ser Gln Arg Leu Phe
225   230   235   240

Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu Thr Pro Glu Gly Glu
         245   250   255

Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys Leu Val Gln Ser Gly
         260   265   270

Ile Lys Val Gly Phe Leu Asn Phe Ile Tyr Phe Cys Ala Gly Tyr Val
         275   280   285

Asn Phe Ile Leu Val Leu Pro Ser Ser Leu Lys Val Phe Leu Cys Asn
         290   295   300

Lys Arg Lys Asn Leu Ala Gly Glu Asn Lys Gly Ala Thr
305   310   315

<210> 57
<211> 41
<212> PRT
<213> Homo sapiens

<400> 57
Met Ser Trp Gly Ile Trp Lys Gly Leu Asp Leu Phe Pro Leu Ile Lys
  1   5   10   15

Gly Asn Ser Ser Leu Cys Leu Phe Leu Leu Val Val Pro Lys Gly Tyr
         20   25   30

Ser Ser Ser Glu Ile Thr Arg Ala Leu
        35   40

<210> 58
<211> 57
<212> PRT
<213> Homo sapiens

<400> 58
Met Ser Leu Pro Cys His Leu Leu Pro Gly Leu Leu Gln Gln Leu Leu
  1   5   10   15

Thr Ser Leu Pro Ala Phe Gln Phe Ser Ala Pro Leu Gln Val Phe Ser
         20   25   30

Leu Asp Gly Leu Ser Leu Pro Ala Pro Lys Leu Leu Thr Ala Ser Leu

          35   40   45

Cys Leu Gln Asp Glu Val Arg Ala Val
     50   55

<210> 59
<211> 52
<212> PRT
<213> Homo sapiens

<400> 59
Met Ser Ser Trp Pro Phe Cys Pro Ser Leu Cys Phe Ser Leu Ser Asn
  1   5   10   15

Leu Ile Pro Gly Ser Gly Leu Leu Pro Val Glu Thr Gly Glu Leu Gly
         20   25   30

Leu Leu Ser Ala Ala Tyr Leu Leu Pro Phe Thr Cys Ile Gln Leu Leu
       35   40   45

Gly Leu Gly Pro
     50

<210> 60
<211> 296
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (281)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 60
Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg
  1   5   10   15

Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu
         20   25   30

Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly
       35   40   45

Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg
     50   55   60

Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn
65   70   75   80

Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe
         85   90   95

Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met
         100   105   110

Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys

```
                    115                      120                      125
Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys
    130                     135                 140

Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val
145                     150                 155                 160

Glu Phe Phe Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile
                165                 170                 175

Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly
            180                 185                 190

Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val
            195                 200                 205

Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln
    210                     215                 220

Gly Gly Lys Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg
225                     230                 235                 240

Ala Val Ser Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn
                245                 250                 255

Leu Asn Glu Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp
            260                 265                 270

Asn Ile Pro Glu Glu Gln Pro Val Xaa Ser Thr Pro Thr Thr Val Ser
            275                 280                 285

Asp Gly Glu Asn Lys Lys Asp Lys
    290                 295


<210> 61
<211> 100
<212> PRT
<213> Homo sapiens

<400> 61
Met Arg Ala Phe Arg Lys Asn Lys Thr Leu Gly Tyr Gly Val Pro Met
    1           5               10                  15

Leu Leu Leu Ile Val Gly Gly Ser Phe Gly Leu Arg Glu Phe Ser Gln
                20                  25                  30

Ile Arg Tyr Asp Ala Val Lys Ser Lys Met Asp Pro Glu Leu Glu Lys
            35                  40                  45

Lys Leu Lys Glu Asn Lys Ile Ser Leu Glu Ser Glu Tyr Glu Lys Ile
        50                  55                  60

Lys Asp Ser Lys Phe Asp Asp Trp Lys Asn Ile Arg Gly Pro Arg Pro
65                  70                  75                  80

Trp Glu Asp Pro Asp Leu Leu Gln Gly Arg Asn Pro Glu Ser Leu Lys
```

```
                        85                      90                      95

Thr Lys Thr Thr
                100


<210> 62
<211> 47
<212> PRT
<213> Homo sapiens

<400> 62
Met Ile Gln Leu Ile Leu Gln Phe Trp Tyr Leu Phe Ser Met Leu Leu
 1               5                  10                  15

Lys Pro Val Gln Gln Cys Gln His Cys Ser Gln Ile Thr Pro Ser Gly
                20                  25                  30

Thr Met Pro Thr Ser Glu Thr Val Phe Leu Ile Leu Phe Leu Pro
            35                  40                  45


<210> 63
<211> 162
<212> PRT
<213> Homo sapiens

<400> 63
Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys
 1               5                  10                  15

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr
                20                  25                  30

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala
            35                  40                  45

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe
        50                  55                  60

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu
 65                 70                  75                  80

Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln
                85                  90                  95

Arg Ala Ala Gly Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe
                100                 105                 110

Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser
            115                 120                 125

Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp
        130                 135                 140

Asp Val Met Cys Ser Glu Ser Tyr Leu Phe Gly Pro Tyr Tyr Ser Ser
145                 150                 155                 160
```

Val Tyr

<210> 64
<211> 335
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (297)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 64
Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala
 1   5   10   15

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
            20   25   30

Leu Pro Xaa Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
            35   40   45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
        50   55   60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
 65   70   75   80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
                85   90   95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Val Glu
            100   105   110

Gly Tyr Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg
            115   120   125

Gly Phe Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp
        130   135   140

Glu Gly Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu
145   150   155   160

Leu Gln Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser
                165   170   175

Leu Leu Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp
            180   185   190

Ser Leu Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val
        195   200   205

```
Asp Asn Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His
    210                 215                 220

Arg Val Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu
225                 230                 235                 240

Asn Phe Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp
                245                 250                 255

Arg Phe His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu
                260                 265                 270

Thr Trp Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val
        275                 280                 285

Gln Leu Ile Thr Gly Val Asp Phe Xaa Gly Thr Thr Val Gly Phe Ala
        290                 295                 300

Arg Val Ser Thr Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp
305                 310                 315                 320

His Ser Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu
                325                 330                 335


<210> 65
<211> 356
<212> PRT
<213> Homo sapiens

<400> 65
Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met Asp Tyr Arg Gly Arg
  1               5                  10                  15

Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp Ala His Ala Val Asp
                20                  25                  30

Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe Arg Gly Arg Gly Thr
            35                  40                  45

Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser His Ala Asp Phe Arg
    50                  55                  60

Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala Arg Glu Gln Ser Arg
65                  70                  75                  80

Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu Asp Phe Arg Asp Lys
                85                  90                  95

Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly Ser Gly Thr Thr Asp
            100                 105                 110

Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser Asp Phe Arg Gly Arg
        115                 120                 125

His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg Glu Met Gly Ser
    130                 135                 140
```

```
Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro Val Asp Pro Asn Ile
145             150             155             160

Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg Glu His Ser Gly Met
                165             170             175

Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp His Thr Ile Glu Arg
            180             185             190

Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu His Ser Glu Thr Arg
            195             200             205

Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His Glu Ser Pro Ala Asp
    210             215             220

Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln Asp Lys Ser Gln Leu
225             230             235             240

Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe Lys Glu Glu
            245             250             255

Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr Asp Tyr Arg Ser Met
            260             265             270

Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly Ser Gln Met Phe Gly
            275             280             285

Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys Thr Ala Arg Asp Ala
    290             295             300

Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr Gly Pro Ser Glu Glu
305             310             315             320

Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val Pro Glu Asp Ala Thr
            325             330             335

Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro Asp Gly Met Pro Val
            340             345             350

Lys Asn Cys Ser
            355
```

<210> 66
<211> 125
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 66

```
Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val
 1               5               10              15
```

Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro
            20   25   30

Tyr Asn Val Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp
            35   40   45

Trp Arg Ser Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp
    50   55   60

Pro Leu Leu Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly
    65   70   75   80

Arg Gly Leu Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg
                85   90   95

Arg Gly Lys Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly
                100   105   110

Gln Gly Glu Gly Met Pro Ser Ser Asp Phe Thr Thr Glu
            115   120   125

<210> 67
<211> 77
<212> PRT
<213> Homo sapiens

<400> 67
Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val Leu Gly
    1   5   10   15

Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly Cys Pro
                20   25   30

Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala Glu Arg
                35   40   45

Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu Ser Asn
        50   55   60

Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu
    65   70   75

<210> 68
<211> 121
<212> PRT
<213> Homo sapiens

<400> 68
Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala
    1   5   10   15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
                20   25   30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
            35   40   45

Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu
    50   55   60

Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
65   70   75   80

Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg Ser Val Gln
                85   90   95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly
            100   105   110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu
        115   120

<210> 69
<211> 26
<212> PRT
<213> Homo sapiens

<400> 69
Met Val Val Met Glu Val Leu Met Thr Met Val Ala Ile Ile Ile Thr
    1   5   10   15

Ala Met Gly Met Met Ala Leu Met Thr Glu
            20   25

<210> 70
<211> 235
<212> PRT
<213> Homo sapiens

<400> 70
Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val
    1   5   10   15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp
            20   25   30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val
        35   40   45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro
    50   55   60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu
65   70   75   80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr
            85   90   95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp
            100   105   110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val

```
         115                   120                   125
Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser
    130                 135                 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser
145                 150                 155                 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser
            165                 170                 175

Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn
            180                 185                 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
            195                 200                 205

Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr
    210                 215                 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225                 230                 235


<210> 71
<211> 217
<212> PRT
<213> Homo sapiens

<400> 71
Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn
    1               5                   10                  15

Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr
                20                  25                  30

Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val
            35                  40                  45

Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys
        50                  55                  60

Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp
65                  70                  75                  80

Gly Lys Cys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe
                85                  90                  95

Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu
            100                 105                 110

Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu
            115                 120                 125

Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys
    130                 135                 140

Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe
```

```
145                  150                  155                  160
Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln
            165              170                  175

Trp Lys Ile Phe Thr Glu Gly Glu Ala Gln Ile Ser Gln Met Cys Ser
            180              185                  190

Ser Arg Val Cys Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr
        195              200                  205

Leu Glu Arg Ser Glu Lys Gly His Cys
    210              215
```

<210> 72
<211> 492
<212> PRT
<213> Homo sapiens

<400> 72
```
Met Lys Ala Phe His Thr Phe Cys Val Val Leu Leu Val Phe Gly Ser
  1               5                  10                  15

Val Ser Glu Ala Lys Phe Asp Asp Phe Glu Asp Glu Glu Asp Ile Val
            20                  25                  30

Glu Tyr Asp Asp Asn Asp Phe Ala Glu Phe Glu Asp Val Met Glu Asp
            35                  40                  45

Ser Val Thr Glu Ser Pro Gln Arg Val Ile Ile Thr Glu Asp Asp Glu
    50                  55                  60

Asp Glu Thr Thr Val Glu Leu Glu Gly Gln Asp Glu Asn Gln Glu Gly
 65              70                  75                  80

Asp Phe Glu Asp Ala Asp Thr Gln Glu Gly Asp Thr Glu Ser Glu Pro
            85                  90                  95

Tyr Asp Asp Glu Glu Phe Glu Gly Tyr Glu Asp Lys Pro Asp Thr Ser
            100              105                  110

Ser Ser Lys Asn Lys Asp Pro Ile Thr Ile Val Asp Val Pro Ala His
        115              120                  125

Leu Gln Asn Ser Trp Glu Ser Tyr Tyr Leu Glu Ile Leu Met Val Thr
    130              135                  140

Gly Leu Leu Ala Tyr Ile Met Asn Tyr Ile Ile Gly Lys Asn Lys Asn
145              150                  155                  160

Ser Arg Leu Ala Gln Ala Trp Phe Asn Thr His Arg Glu Leu Leu Glu
            165              170                  175

Ser Asn Phe Thr Leu Val Gly Asp Asp Gly Thr Asn Lys Glu Ala Thr
            180              185                  190

Ser Thr Gly Lys Leu Asn Gln Glu Asn Glu His Ile Tyr Asn Leu Trp
```

```
                195                      200                       205
```

Cys Ser Gly Arg Val Cys Cys Glu Gly Met Leu Ile Gln Leu Arg Phe
    210   215   220

Leu Lys Arg Gln Asp Leu Leu Asn Val Leu Ala Arg Met Met Arg Pro
225   230   235   240

Val Ser Asp Gln Val Gln Ile Lys Val Thr Met Asn Asp Glu Asp Met
                245   250   255

Asp Thr Tyr Val Phe Ala Val Gly Thr Arg Lys Ala Leu Val Arg Leu
                260   265   270

Gln Lys Glu Met Gln Asp Leu Ser Glu Phe Cys Ser Asp Lys Pro Lys
        275   280   285

Ser Gly Ala Lys Tyr Gly Leu Pro Asp Ser Leu Ala Ile Leu Ser Glu
    290   295   300

Met Gly Glu Val Thr Asp Gly Met Met Asp Thr Lys Met Val His Phe
305   310   315   320

Leu Thr His Tyr Ala Asp Lys Ile Glu Ser Val His Phe Ser Asp Gln
                325   330   335

Phe Ser Gly Pro Lys Ile Met Gln Glu Glu Gly Gln Pro Leu Lys Leu
            340   345   350

Pro Asp Thr Lys Arg Thr Leu Leu Phe Thr Phe Asn Val Pro Gly Ser
        355   360   365

Gly Asn Thr Tyr Pro Lys Asp Met Glu Ala Leu Leu Pro Leu Met Asn
    370   375   380

Met Val Ile Tyr Ser Ile Asp Lys Ala Lys Lys Phe Arg Leu Asn Arg
385   390   395   400

Glu Gly Lys Gln Lys Ala Asp Lys Asn Arg Ala Arg Val Glu Glu Asn
                405   410   415

Phe Leu Lys Leu Thr His Val Gln Arg Gln Glu Ala Ala Gln Ser Arg
            420   425   430

Arg Glu Glu Lys Lys Arg Ala Glu Lys Glu Arg Ile Met Asn Glu Glu
        435   440   445

Asp Pro Glu Lys Gln Arg Arg Leu Glu Glu Ala Ala Leu Arg Arg Glu
    450   455   460

Gln Lys Lys Leu Glu Lys Lys Gln Met Lys Met Lys Gln Ile Lys Val
465   470   475   480

Lys Ala His Val Lys Pro Ser Gln Arg Phe Glu Phe
                485   490

<210> 73

<211> 36
<212> PRT
<213> Homo sapiens

<400> 73
Met Leu Phe Leu Cys Leu Leu Pro Ser Leu Phe Pro Pro Gly Leu Pro
 1   5   10   15

Thr Thr His Tyr Ile Thr Ser Ile Cys Asn Gln Ser Cys Tyr His His
             20   25   30

Cys Ala Arg Ala
         35

<210> 74
<211> 74
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 74
Met Ala Glu Leu Leu Leu Xaa Val Leu Ser Val Gln Ser Ala Val His
 1   5   10   15

Glu Val Glu Ala Asn Glu Gly Gly Lys Gln Ser His Thr Pro Ala His
             20   25   30

Arg Gly Trp Asn Arg Arg Ala Ala Glu Val Arg Lys Ala Arg Leu Pro
         35   40   45

Leu Gly Val Thr Val Gly Pro Arg Cys Arg His Ala Val His Pro Ser
     50   55   60

Lys Gly Gly Ile Ser Ala Xaa Ala Val Leu
 65   70

<210> 75
<211> 133
<212> PRT
<213> Homo sapiens

<400> 75
Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu
 1   5   10   15

Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg
             20   25   30

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys
        35   40   45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser
        50   55   60

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro
 65   70   75   80

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp
                85   90   95

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly
            100   105   110

Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys
            115   120   125

Asn Lys Arg Phe Pro
    130

<210> 76
<211> 298
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76
Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Leu Arg Tyr
 1   5   10   15

Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser Ala Pro
            20   25   30

Lys Asp Gln Gln Val Val Thr Ala Val Xaa Tyr Gln Glu Ala Ile Leu
        35   40   45

Ala Cys Lys Thr Pro Lys Lys Thr Val Xaa Ser Arg Leu Glu Trp Lys
    50   55   60

Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr Gln Gln Thr Leu Gln
 65   70   75   80

Gly Asp Phe Lys Asn Arg Ala Glu Met Ile Asp Phe Asn Ile Arg Ile
                85   90   95

Lys Asn Val Thr Arg Ser Asp Ala Gly Lys Tyr Arg Cys Glu Val Ser

```
                      100                      105                      110
     Ala Pro Ser Glu Gln Gly Gln Asn Leu Glu Glu Asp Thr Val Thr Leu
             115                  120                  125

     Glu Val Leu Val Ala Pro Ala Val Pro Ser Cys Glu Val Pro Ser Ser
             130                  135                  140

     Ala Leu Ser Gly Thr Val Val Glu Leu Arg Cys Gln Asp Lys Glu Gly
     145                      150                  155                  160

     Asn Pro Ala Pro Glu Tyr Thr Trp Phe Lys Asp Gly Ile Arg Leu Leu
                     165                  170                  175

     Glu Asn Pro Arg Leu Gly Ser Gln Ser Thr Asn Ser Ser Tyr Thr Met
                 180                  185                  190

     Asn Thr Lys Thr Gly Thr Leu Gln Phe Asn Thr Val Ser Lys Leu Asp
             195                  200                  205

     Thr Gly Glu Tyr Ser Cys Glu Ala Arg Asn Ser Val Gly Tyr Arg Arg
         210                  215                  220

     Cys Pro Gly Lys Arg Met Gln Val Asp Asp Leu Asn Ile Ser Gly Ile
     225                  230                  235                  240

     Ile Ala Ala Val Val Val Val Ala Leu Val Ile Ser Val Cys Gly Leu
                     245                  250                  255

     Gly Val Cys Tyr Ala Gln Arg Lys Gly Tyr Phe Ser Lys Glu Thr Ser
                 260                  265                  270

     Phe Gln Lys Ser Asn Ser Ser Ser Lys Ala Thr Thr Met Ser Glu Asn
             275                  280                  285

     Asp Phe Lys His Thr Lys Ser Phe Ile Ile
         290                  295
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<210> 77
<211> 856
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (233)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (595)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (683)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 77
Met Asp Ile Ser Lys Gly Leu Pro Gly Met Gln Gly Gly Leu His Ile
 1   5   10   15

Trp Ile Ser Glu Asn Arg Lys Met Val Pro Val Pro Glu Gly Ala Tyr
            20   25   30

Gly Asn Phe Phe Glu Glu His Cys Tyr Val Ile Leu His Val Pro Gln
        35   40   45

Ser Pro Lys Xaa Thr Gln Gly Ala Ser Ser Asp Leu His Tyr Trp Val
        50   55   60

Gly Lys Gln Ala Gly Ala Glu Ala Gln Gly Ala Ala Glu Ala Phe Gln
65   70   75   80

Gln Arg Leu Gln Asp Glu Leu Gly Gly Gln Thr Val Leu His Arg Glu
                85   90   95

Ala Gln Gly His Glu Ser Asp Cys Phe Cys Ser Tyr Phe Arg Pro Gly
            100   105   110

Ile Ile Tyr Arg Lys Gly Gly Leu Ala Ser Asp Leu Lys His Val Glu
            115   120   125

Thr Asn Leu Phe Asn Ile Gln Arg Leu Leu His Ile Lys Gly Arg Lys
    130   135   140

His Val Ser Ala Thr Glu Val Glu Leu Ser Trp Asn Ser Phe Asn Lys
145   150   155   160

Gly Asp Ile Phe Leu Leu Asp Leu Gly Lys Met Met Ile Gln Trp Asn
                165   170   175

Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala Arg Gly Leu Xaa Leu Thr
            180   185   190

Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly Gly Arg Ala Gln Ile Gly
        195   200   205

Val Val Asp Asp Glu Ala Lys Ala Pro Asp Leu Met Gln Ile Met Glu
    210   215   220

Ala Val Leu Gly Arg Arg Val Gly Xaa Leu Arg Ala Ala Thr Pro Ser
225   230   235   240

Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn Val Arg Leu Tyr His Val

```
              245                    250                    255

Tyr Glu Lys Gly Lys Asp Leu Val Val Leu Glu Leu Ala Thr Pro Pro
            260                    265                    270

Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp Phe Tyr Ile Leu Asp Gln
            275                    280                    285

Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly Arg Met Ser Ser Leu Gln
            290                    295                    300

Glu Arg Lys Ala Ala Phe Ser Arg Ala Val Gly Phe Ile Gln Ala Lys
305                    310                    315                    320

Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val Val Asn Asp Gly Ala Glu
                325                    330                    335

Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr Trp Ser Glu Lys Arg Arg
            340                    345                    350

Arg Asn Gln Lys Leu Gly Gly Arg Asp Lys Ser Ile His Val Lys Leu
            355                    360                    365

Asp Val Gly Lys Leu His Thr Gln Pro Lys Leu Ala Ala Gln Leu Arg
    370                    375                    380

Met Val Asp Asp Gly Ser Gly Lys Val Glu Val Trp Cys Ile Gln Asp
385                    390                    395                    400

Leu His Arg Gln Pro Val Asp Pro Lys Arg His Gly Gln Leu Cys Ala
                405                    410                    415

Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr Gln Arg Leu Gly Arg Val
            420                    425                    430

Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His Gln Ala Thr Ala Asp Glu
            435                    440                    445

Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu Leu Asp Val Met Tyr Gly
    450                    455                    460

Gly Val Leu Val Gln Glu His Val Thr Met Gly Ser Glu Pro Pro His
465                    470                    475                    480

Phe Leu Ala Ile Phe Gln Gly Gln Leu Val Ile Phe Gln Glu Arg Ala
                485                    490                    495

Gly His His Gly Lys Gly Gln Ser Ala Ser Thr Thr Arg Leu Phe Gln
            500                    505                    510

Val Gln Gly Thr Asp Ser His Asn Thr Arg Thr Met Glu Val Pro Ala
            515                    520                    525

Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe Leu Leu Val Thr Ala
    530                    535                    540

Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Cys Asn Gly Asp Gln Arg
545                    550                    555                    560
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Glu Met Ala Arg Val Val Val Thr Val Ile Ser Arg Lys Asn Glu Glu
                565             570             575

Thr Val Leu Glu Gly Gln Glu Pro Pro His Phe Trp Glu Ala Leu Gly
            580             585             590

Gly Arg Xaa Pro Tyr Pro Ser Asn Lys Arg Leu Pro Glu Glu Val Pro
            595             600             605

Ser Phe Gln Pro Arg Leu Phe Glu Cys Ser Ser His Met Gly Cys Leu
    610             615             620

Val Leu Ala Glu Val Gly Phe Phe Ser Gln Glu Asp Leu Asp Lys Tyr
625             630             635             640

Asp Ile Met Leu Leu Asp Thr Trp Gln Glu Ile Phe Leu Trp Leu Gly
            645             650             655

Glu Ala Ala Ser Glu Trp Lys Glu Ala Val Ala Trp Gly Gln Glu Tyr
            660             665             670

Leu Lys Thr His Pro Ala Gly Arg Ser Pro Xaa Thr Pro Ile Val Leu
            675             680             685

Val Lys Gln Gly His Glu Pro Pro Thr Phe Ile Gly Trp Phe Phe Thr
    690             695             700

Trp Asp Pro Tyr Lys Trp Thr Ser His Pro Ser His Lys Glu Val Val
705             710             715             720

Asp Gly Ser Pro Ala Ala Ala Ser Thr Ile Ser Glu Ile Thr Ala Glu
            725             730             735

Val Asn Asn Phe Arg Leu Ser Arg Trp Pro Gly Asn Gly Arg Ala Gly
            740             745             750

Ala Val Ala Leu Gln Ala Leu Lys Gly Ser Gln Asp Ser Ser Glu Asn
            755             760             765

Asp Leu Val Arg Ser Pro Lys Ser Ala Gly Ser Arg Thr Ser Ser Ser
    770             775             780

Val Ser Ser Thr Ser Ala Thr Ile Asn Gly Gly Leu Arg Arg Glu Gln
785             790             795             800

Leu Met His Gln Ala Val Glu Asp Leu Pro Glu Gly Val Asp Pro Ala
            805             810             815

Arg Arg Glu Phe Tyr Leu Ser Asp Ser Asp Phe Gln Asp Ile Phe Gly
            820             825             830

Lys Ser Lys Glu Glu Phe Tyr Ser Met Ala Thr Trp Arg Gln Arg Gln
            835             840             845

Glu Lys Lys Gln Leu Gly Phe Phe
    850             855
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<210> 78
<211> 39
<212> PRT
<213> Homo sapiens

<400> 78
Met Pro Cys Val Phe Cys Tyr Leu Leu Leu Leu Val Gln Phe Thr Tyr
1   5   10   15

Thr Phe Thr Leu Ser Asn Pro Asn Ser Ser Ser Arg Pro Asp Ser Asp
            20   25   30

Phe Asn Phe Leu Lys Ala Ile
        35

<210> 79
<211> 30
<212> PRT
<213> Homo sapiens

<400> 79
Met Ala Leu Ser Val Leu Val Leu Leu Leu Ala Val Leu Tyr Glu
1   5   10   15

Gly Ile Lys Val Gly Lys Ala Ser Cys Ser Thr Arg Tyr Trp
            20   25   30

<210> 80
<211> 45
<212> PRT
<213> Homo sapiens

<400> 80
Met Pro Ala Leu Val Leu Leu Pro Arg Val Leu Pro Pro Gly Gln Gly
1   5   10   15

Glu Val Gln Arg Val Arg Cys Pro Tyr Val Gly Asn Ser Ser Gly Arg
            20   25   30

Lys Ile Trp Phe Gly Phe Ile Leu Arg Ala Ile Lys His
            35   40   45

<210> 81
<211> 39
<212> PRT
<213> Homo sapiens

<400> 81
Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
1   5   10   15

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro
            20   25   30

Gly Ser Gln Gly Pro Gly Phe
            35

<210> 82
<211> 36
<212> PRT
<213> Homo sapiens

<400> 82
Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe
  1   5   10   15

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Gln Gly
                20   25   30

Gly Glu Gly Ala
            35

<210> 83
<211> 293
<212> PRT
<213> Homo sapiens

<400> 83
Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg Leu Ser Arg
  1   5   10   15

Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu Ser Ala Ala
                20   25   30

Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly Leu Pro Thr
            35   40   45

Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu
      50   55   60

Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser
 65   70   75   80

Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val
                85   90   95

Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu
                100   105   110

Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu
            115   120   125

Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp
            130   135   140

Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe
145   150   155   160

Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp
                165   170   175

Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp
        180   185   190

Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser
        195   200   205

Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys
    210   215   220

Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser
225   230   235   240

Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu
            245   250   255

Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro
        260   265   270

Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val Ser Asp Gly Glu
        275   280   285

Asn Lys Lys Asp Lys
    290

<210> 84
<211> 143
<212> PRT
<213> Homo sapiens

<400> 84
Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala
    1   5   10   15

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
            20   25   30

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
            35   40   45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
    50   55   60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
65   70   75   80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
                85   90   95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu
            100   105   110

Gly Thr Gly Leu Ser Arg Gln Pro Gln His Leu Cys Arg Pro Gln Gly
        115   120   125

Phe Leu Pro Gly Gly Val Arg Pro Ala Pro Asp Arg Ala Pro Gly
    130   135   140

<210> 85
<211> 121
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 85
Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala
 1   5   10   15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
                20   25   30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
            35   40   45

Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu
        50   55   60

Ser Gln Xaa Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
 65   70   75   80

Asp Met His Asp Phe Phe Val Gly Xaa Met Gly Lys Arg Ser Val Gln
                85   90   95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly
            100   105   110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu
        115   120

<210> 86
<211> 25
<212> PRT
<213> Homo sapiens

<400> 86
Met Val Leu Leu Met Val Trp Val Val Met Ala Val Val Val Glu Ala
 1   5   10   15

Val Glu Val Thr Met Gly Lys Ala Ala
                20   25

<210> 87
<211> 4

<212> PRT
<213> Homo sapiens

<400> 87
Ser Leu His Ala
   1

<210> 88
<211> 235
<212> PRT
<213> Homo sapiens

<400> 88
Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val
  1   5   10   15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp
               20   25   30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val
            35   40   45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro
         50   55   60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu
  65   70   75   80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr
               85   90   95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp
            100   105   110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val
         115   120   125

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser
    130   135   140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser
145   150   155   160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser
               165   170   175

Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn
            180   185   190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
         195   200   205

Lys Ser His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr
    210   215   220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225   230   235

<210> 89
<211> 87
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 89
Met Ser Leu Asn Val Leu Leu Ala Leu Phe Xaa Leu Leu Leu Ala Lys
 1   5   10   15

Glu Ser Ser Cys Arg Ile Pro Ala Ala Arg Gly Asp Pro Leu Val Leu
            20   25   30

Glu Arg Pro Pro Pro Arg Trp Glu Leu Gln Leu Leu Val Pro Phe Ser
        35   40   45

Glu Gly Leu Ile Ser Ser Leu Ala Val Ile Met Gly His Ser Leu Phe
    50   55   60

Pro Gly Val Glu Ile Gly Tyr Pro Ala His Lys Phe His Asn Asn Asn
65   70   75   80

Thr Ser Arg Lys His Xaa Val
                85

<210> 90
<211> 106
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 90
Met Ala Leu His Gly Phe His Phe Asp Leu Phe His Phe His Leu Leu
 1   5   10   15

Leu Phe Gln Leu Leu Xaa Leu Thr Pro Gln Cys Ser Leu Leu Gln Pro
            20   25   30

Ala Leu Phe Leu Arg Ile Phe Leu Ile His Asp Ser Leu Leu Leu Cys
        35   40   45

Ser Phe Phe Leu Leu Pro Pro Arg Leu Cys Cys Phe Leu Ser Leu His

```
                50                      55                      60
        Met Cys Gln Phe Gln Glu Val Leu Phe Tyr Ser Gly Thr Val Leu Ile
         65                  70                  75                  80

        Cys Phe Leu Phe Ala Phe Ser Val Glu Ser Glu Leu Phe Gly Phe Ile
                         85                  90                  95

        Asn Arg Ile Asn His His Val His Gln Gly
                    100                 105
```

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<210> 91
<211> 59
<212> PRT
<213> Homo sapiens

<400> 91
Met Tyr Ala Lys Cys Gln Lys Lys Leu Ala Pro Ala Trp Leu Ile Phe
  1               5                  10                  15

Phe Ile Gly Gly Met Thr Arg Lys Ile Ile Leu Ala Pro Cys Leu Ser
                 20                  25                  30

Met Val Ala Ala Arg Gly Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn
            35                  40                  45

Cys Leu Asn Thr Cys Lys Asn Lys Arg Phe Pro
        50                  55
```

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<210> 92
<211> 32
<212> PRT
<213> Homo sapiens

<400> 92
Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe
  1               5                  10                  15

Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Leu
                 20                  25                  30
```

```
<210> 93
<211> 178
<212> PRT
<213> Homo sapiens

<400> 93
Phe Ser Val Thr Asn Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile
  1               5                  10                  15

Lys Cys Ala Leu Cys Ser Pro His Ser Gln Ser Leu Phe His Ser Pro
                 20                  25                  30
```

Glu Arg Glu Val Leu Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys
    35   40   45

Asp Tyr Cys Lys Glu Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly
    50   55   60

Phe Leu Gln Thr Thr Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys
65   70   75   80

Asp Gly Gly Leu Cys Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly
          85   90   95

Pro Ala Ser Asn Tyr Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu
        100   105   110

Glu Ile Ser Arg Lys His Lys His Asn Cys Phe Cys Ile Gln Glu Val
       115   120   125

Val Ser Gly Leu Arg Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly
    130   135   140

Ser Gln Arg Leu Phe Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu
145   150   155   160

Thr Pro Glu Gly Glu Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys
        165   170   175

Leu Val

<210> 94
<211> 216
<212> PRT
<213> Homo sapiens

<400> 94
Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met
 1   5   10   15

Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser Ile Thr Val
        20   25   30

Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr
       35   40   45

Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr
    50   55   60

Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly
 65   70   75   80

Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu
        85   90   95

Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp
       100   105   110

```
Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu
        115                 120                 125

Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg
        130                 135                 140

Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr
.145                 150                 155                 160

Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met
                165                 170                 175

Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe
                180                 185                 190

Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln
        195                 200                 205

Arg Ala Lys Lys Leu Ser Lys Ala
        210                 215
```

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<210> 95
<211> 196
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (141)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 95
Gln Leu Ile Val Thr Ala Arg Thr Thr Arg Gly Leu Asp Pro Leu Phe
  1               5                  10                  15

Gly Met Cys Glu Lys Phe Leu Gln Glu Val Asp Phe Phe Gln Arg Tyr
            20                  25                  30

Phe Ile Ala Asp Leu Pro His Leu Gln Asp Ser Phe Val Asp Lys Leu
            35                  40                  45

Leu Asp Leu Met Pro Arg Leu Met Thr Ser Lys Pro Ala Glu Val Val
        50                  55                  60

Lys Ile Leu Gln Thr Met Leu Arg Gln Ser Ala Phe Leu His Leu Pro
 65                  70                  75                  80

Leu Pro Glu Gln Ile His Lys Ala Ser Ala Thr Ile Ile Glu Pro Ala
                85                  90                  95

Gly Glu Phe Arg Gln Pro Phe Ala Val Tyr Leu Trp Val Gly Gly Cys
            100                 105                 110

Pro Gly Met Leu Met Gln Pro Trp Ser Met Cys Arg Ile Leu Arg Thr
            115                 120                 125
```

Leu Leu Arg Ser Arg Val Leu Tyr Pro Asp Gly Gln Xaa Ser Asp Asp
    130   135   140

Ser Pro Gln Ala Cys Arg Leu Pro Glu Ser Trp Pro Arg Ala Ala Pro
145   150   155   160

Ala His His Ser Gly Leu Ser Leu Pro His Arg Leu Asp Arg Gly Met
           165   170   175

Pro Gly Gly Ser Glu Ala Ala Ala Gly Leu Gln Leu Gln Cys Ser His
           180   185   190

Ser Lys Met Pro
         195

<210> 96
<211> 255
<212> PRT
<213> Homo sapiens

<400> 96
Ile His Leu Ala Leu Val Glu Leu Leu Lys Asn Leu Thr Lys Tyr Pro
  1   5   10   15

Thr Asp Arg Asp Ser Ile Trp Lys Cys Leu Lys Phe Leu Gly Ser Arg
            20   25   30

His Pro Thr Leu Val Leu Pro Leu Val Pro Glu Leu Leu Ser Thr His
          35   40   45

Pro Phe Phe Asp Thr Ala Glu Pro Asp Met Asp Asp Pro Ala Tyr Ile
      50   55   60

Ala Val Leu Val Leu Ile Phe Asn Ala Ala Lys Thr Cys Pro Thr Met
  65   70   75   80

Pro Ala Leu Phe Ser Asp His Thr Phe Arg His Tyr Ala Tyr Leu Arg
              85   90   95

Asp Ser Leu Ser His Leu Val Pro Ala Leu Arg Leu Pro Gly Arg Lys
           100   105   110

Leu Val Ser Ser Ala Val Ser Pro Ser Ile Ile Pro Gln Glu Asp Pro
          115   120   125

Ser Gln Gln Phe Leu Gln Gln Ser Leu Glu Arg Val Tyr Ser Leu Gln
      130   135   140

His Leu Asp Pro Gln Gly Ala Gln Glu Leu Leu Glu Phe Thr Ile Arg
145   150   155   160

Asp Leu Gln Arg Leu Gly Glu Leu Gln Ser Glu Leu Ala Gly Val Ala
            165   170   175

Asp Phe Ser Ala Thr Tyr Leu Arg Cys Gln Leu Leu Leu Ile Lys Ala
           180   185   190

Leu Gln Glu Lys Leu Trp Asn Val Ala Ala Pro Leu Tyr Leu Lys Gln
        195   200   205

Ser Asp Leu Ala Ser Ala Ala Ala Lys Gln Ile Met Glu Glu Thr Tyr
        210   215   220

Lys Met Glu Phe Met Tyr Ser Gly Val Glu Asn Lys Gln Val Val Ile
225   230   235   240

Ile His His Met Arg Leu Gln Ala Lys Ala Leu Gln Leu Ile Val
                245   250   255

<210> 97
<211> 137
<212> PRT
<213> Homo sapiens

<400> 97
Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val Arg Thr Gly
  1   5   10   15

Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala Val Val Leu
            20   25   30

Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr Asn Phe Ser
            35   40   45

Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp Ala Asn Met
        50   55   60

Cys Ile Ala Ile Ala Ile Ser Leu Leu Met Ile Leu Ile Cys Ala Met
65   70   75   80

Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Gly Ile Ile Pro Phe
                85   90   95

Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu Val Ala Ile
            100   105   110

Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile Arg Gln Leu
            115   120   125

Pro Pro Asn Phe Pro Tyr Arg Asp Asp
        130   135

<210> 98
<211> 87
<212> PRT
<213> Homo sapiens

<400> 98
Phe Pro Thr Glu Met Met Ser Cys Ala Val Asn Pro Thr Cys Leu Val
  1   5   10   15

Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr
            20   25   30

Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn
        35   40   45

Ser Ser Asp Val Leu Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu
    50   55   60

Leu Pro Pro Tyr Asp Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro
65   70   75   80

Pro Pro Pro Tyr Val Ser Ala
                85

<210> 99
<211> 97
<212> PRT
<213> Homo sapiens

<400> 99
Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
1   5   10   15

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
            20   25   30

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
            35   40   45

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
        50   55   60

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
65   70   75   80

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu
                85   90   95

Gly

<210> 100
<211> 240
<212> PRT
<213> Homo sapiens

<400> 100
Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg Gly Phe
1   5   10   15

Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp Glu Gly
            20   25   30

Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu Leu Gln
            35   40   45

Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser Leu Leu

```
          50                      55                      60

Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp Ser Leu
 65              70              75              80

Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val Asp Asn
                85              90              95

Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His Arg Val
            100             105             110

Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu Asn Phe
        115             120             125

Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp Arg Phe
        130             135             140

His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu Thr Trp
145             150             155             160

Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val Gln Leu
            165             170             175

Ile Thr Gly Val Asp Phe Thr Gly Thr Thr Val Gly Phe Ala Arg Val
            180             185             190

Ser Ala Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp His Ser
        195             200             205

Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu Met Gly His
    210             215             220

Asn Leu Gly Met Asp His Asp Glu Asn Val Gln Gly Cys Arg Cys Gln
225             230             235             240
```

```
<210> 101
<211> 118
<212> PRT
<213> Homo sapiens

<400> 101
Phe Glu Ala Gly Arg Cys Ile Met Ala Arg Pro Ala Leu Ala Pro Ser
  1               5               10              15

Phe Pro Arg Met Phe Ser Asp Cys Ser Gln Ala Tyr Leu Glu Ser Phe
                20              25              30

Leu Glu Arg Pro Gln Ser Val Cys Leu Ala Asn Ala Pro Asp Leu Ser
            35              40              45

His Leu Val Gly Gly Pro Val Cys Gly Asn Leu Phe Val Glu Arg Gly
        50              55              60

Glu Gln Cys Asp Cys Gly Pro Pro Glu Asp Cys Arg Asn Arg Cys Cys
```

```
        65                    70                    75                    80

Asn Ser Thr Thr Cys Gln Leu Ala Glu Gly Ala Gln Cys Ala His Gly
                85                    90                    95

Thr Cys Cys Gln Glu Cys Lys Val Lys Pro Ala Gly Glu Leu Cys Arg
            100                   105                   110

Pro Lys Lys Asp Met Cys
        115


<210> 102
<211> 471
<212> PRT
<213> Homo sapiens

<400> 102
Gly Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp Asn Arg Asp Tyr Pro
  1               5                   10                    15

Pro Pro Pro Leu Lys Ser His Ala Gln Glu Arg His Ser Gly Asn Phe
            20                    25                    30

Pro Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln Gly His Ser Gly Pro
            35                    40                    45

Pro Phe Ala Asn Val Glu Glu His Ser Phe Ser Tyr Gly Ala Arg Asp
        50                    55                    60

Gly Pro His Gly Asp Tyr Arg Gly Gly Glu Gly Pro Gly His Asp Phe
 65                   70                    75                    80

Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser
                85                    90                    95

Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp
            100                   105                   110

Arg Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met
            115                   120                   125

Asp Tyr Arg Gly Arg Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp
        130                   135                   140

Ala His Ala Val Asp Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe
 145                  150                   155                   160

Arg Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser
                165                   170                   175

His Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala
            180                   185                   190

Arg Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu
        195                   200                   205

Asp Phe Arg Asp Lys Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly
```

```
          210                   215                   220

Ser Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser
225                 230                 235                 240

Asp Phe Arg Gly Arg His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly
                245                 250                 255

Arg Glu Met Gly Ser Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro
            260                 265                 270

Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg
            275                 280                 285

Glu His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp
        290                 295                 300

His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu
305                 310                 315                 320

His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His
                325                 330                 335

Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln
            340                 345                 350

Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly
            355                 360                 365

Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr
    370                 375                 380

Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly
385                 390                 395                 400

Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys
                405                 410                 415

Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr
            420                 425                 430

Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val
        435                 440                 445

Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro
    450                 455                 460

Asp Gly Met Pro Val Lys Asn
465                 470
```

<210> 103
<211> 125
<212> PRT
<213> Homo sapiens

<400> 103
Gly Leu Gln Asp Ser Ala Arg Gly Gly Ser Gln Glu Glu Arg Phe Ala

```
     1                 5                  10                 15

Pro Gly Trp Asn Arg Asp Tyr Pro Pro Pro Pro Leu Lys Ser His Ala
             20                  25                 30

Gln Glu Arg His Ser Gly Asn Phe Pro Gly Arg Asp Ser Leu Pro Phe
             35                  40                 45

Asp Phe Gln Gly His Ser Gly Pro Pro Phe Ala Asn Val Glu Glu His
     50                  55                  60

Ser Phe Ser Tyr Gly Ala Arg Asp Gly Pro His Gly Asp Tyr Arg Gly
65                  70                  75                      80

Gly Glu Gly Pro Gly His Asp Phe Arg Gly Gly Asp Phe Ser Ser Ser
                 85                  90                 95

Asp Phe Gln Ser Arg Asp Ser Ser Gln Leu Asp Phe Arg Gly Arg Asp
             100                 105                110

Ile His Ser Gly Asp Phe Arg Asp Arg Glu Gly Pro Pro
         115                 120                 125
```

<210> 104
<211> 330
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (147)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (181)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (260)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 104
```
Met Leu Pro Asp Trp Lys Xaa Ser Leu Ile Leu Met Ala Tyr Ile Ile
  1               5                  10                 15
```

```
Ile Phe Leu Thr Gly Leu Pro Ala Asn Leu Leu Ala Leu Arg Ala Phe
            20                  25                  30

Val Gly Arg Ile Arg Gln Pro Gln Pro Ala Pro Val His Ile Leu Leu
            35                  40                  45

Leu Ser Leu Thr Leu Ala Asp Leu Leu Leu Leu Leu Leu Leu Pro Phe
        50                  55                  60

Lys Ile Ile Glu Ala Ala Ser Asn Phe Arg Trp Tyr Leu Pro Lys Val
65                  70                  75                  80

Val Cys Ala Leu Thr Ser Phe Gly Phe Tyr Ser Ser Ile Tyr Cys Ser
                85                  90                  95

Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly Val Ala
            100                 105                 110

Phe Pro Val Gln Tyr Lys Leu Ser Arg Arg Pro Leu Tyr Gly Val Ile
            115                 120                 125

Ala Ala Leu Val Ala Trp Val Met Ser Phe Gly His Cys Thr Ile Val
        130                 135                 140

Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val Arg Ser Gly Asn
145                 150                 155                 160

Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln Leu Asp Val Val
                165                 170                 175

Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe Phe Xaa Pro Met
            180                 185                 190

Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp Ile Met Leu Ser
        195                 200                 205

Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Ala Val Gly Leu Ala
    210                 215                 220

Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro Tyr Asn Val
225                 230                 235                 240

Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp Trp Arg Ser
                245                 250                 255

Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp Pro Leu Leu
            260                 265                 270

Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly Arg Gly Leu
        275                 280                 285

Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg Arg Gly Lys
    290                 295                 300

Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly Gln Gly Glu
305                 310                 315                 320

Gly Met Pro Ser Ser Asp Phe Thr Thr Glu
```

325   330

<210> 105
<211> 17
<212> PRT
<213> Homo sapiens

<400> 105
Cys Ser Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly
 1   5   10   15

Val

<210> 106
<211> 94
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 106
Cys Thr Ile Val Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val
 1   5   10   15

Arg Ser Gly Asn Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln
            20   25   30

Leu Asp Val Val Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe
            35   40   45

Phe Xaa Pro Met Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp
    50   55   60

Ile Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala
 65   70   75   80

Val Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys
            85   90

<210> 107
<211> 143

<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 107
Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe Ser Arg Thr
 1   5   10   15

Val Val Ala Pro Ser Ala Val Ala Xaa Lys Arg Pro Pro Glu Pro Thr
             20   25   30

Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn Leu Tyr Glu
         35   40   45

Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val Leu Asp Val
     50   55   60

Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val
 65   70   75   80

Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly
                 85   90   95

Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala
                 100   105   110

Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu
         115   120   125

Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu
     130   135   140

<210> 108
<211> 36
<212> PRT
<213> Homo sapiens

<400> 108
Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys
 1   5   10   15

Arg Ser Val Gln Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val
             20   25   30

Pro Ser Phe Gly
         35

<210> 109
<211> 15
<212> PRT
<213> Homo sapiens

<400> 109
Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg
1   5   10   15

<210> 110
<211> 10
<212> PRT
<213> Homo sapiens

<400> 110
Asp Met His Asp Phe Phe Val Gly Leu Met
1   5   10

<210> 111
<211> 16
<212> PRT
<213> Homo sapiens

<400> 111
Glu Trp Glu Ala Thr Glu Glu Met Glu Trp Ile Ile Arg Glu Ala Met
1   5   10   15

<210> 112
<211> 35
<212> PRT
<213> Homo sapiens

<400> 112
Trp Glu Trp Gly Thr Ile Thr Val Glu Asp Met Val Leu Leu Met Val
1   5   10   15

Trp Val Val Met Ala Val Val Val Glu Ala Val Glu Val Thr Met Gly
            20   25   30

Lys Ala Ala
        35

<210> 113
<211> 18
<212> PRT
<213> Homo sapiens

<400> 113
Gly Met Gly Gly Tyr Gly Arg Asp Gly Met Asp Asn Gln Gly Gly Tyr
1   5   10   15

Gly Ser

<210> 114

<211> 43
<212> PRT
<213> Homo sapiens

<400> 114
Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
 1   5   10   15

Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
             20   25   30

Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met
         35   40

<210> 115
<211> 43
<212> PRT
<213> Homo sapiens

<400> 115
Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
 1   5   10   15

Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
             20   25   30

Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met
         35   40

<210> 116
<211> 223
<212> PRT
<213> Homo sapiens

<400> 116
Trp Asp Ser Thr Thr Ser Trp Thr Thr Ile Trp Leu Gln Gln Arg Gly
 1   5   10   15

Asn Ser Ser Val Leu Ser Arg Val Gly Asn Arg Ala Asn Gly Ile Thr
             20   25   30

Leu Thr Met Asp Tyr Gln Gly Arg Ser Thr Gly Glu Ala Phe Val Gln
         35   40   45

Phe Ala Ser Lys Glu Ile Ala Glu Asn Ala Leu Gly Lys His Lys Glu
     50   55   60

Arg Ile Gly His Arg Tyr Ile Glu Ile Phe Arg Ser Ser Arg Ser Glu
 65   70   75   80

Ile Lys Gly Phe Tyr Asp Pro Pro Arg Arg Leu Leu Gly Gln Arg Pro
                 85   90   95

Gly Pro Tyr Asp Arg Pro Ile Gly Gly Arg Gly Gly Tyr Tyr Gly Ala
             100   105   110

```
Gly Arg Gly Ser Met Tyr Asp Arg Met Arg Arg Gly Gly Asp Gly Tyr
        115                 120                 125

Asp Gly Gly Tyr Gly Gly Phe Asp Asp Tyr Gly Gly Tyr Asn Asn Tyr
        130             135                 140

Gly Tyr Gly Asn Asp Gly Phe Asp Asp Arg Met Arg Asp Gly Arg Gly
145                 150                 155                 160

Met Gly Gly His Gly Tyr Gly Gly Ala Gly Asp Ala Ser Ser Gly Phe
                165                 170                 175

His Gly Gly His Phe Val His Met Arg Gly Leu Pro Phe Arg Ala Thr
            180                 185                 190

Glu Asn Asp Ile Ala Asn Phe Phe Ser Pro Leu Asn Pro Ile Arg Val
        195                 200                 205

His Ile Asp Ile Gly Ala Asp Gly Arg Ala Gln Glu Lys Gln Met
    210                 215                 220
```

<210> 117
<211> 26
<212> PRT
<213> Homo sapiens

<400> 117
```
Phe Thr His Ser Phe Ile Leu Glu His Ala Phe Ser Leu Leu Ile Thr
  1           5                 10                      15

Leu Pro Val Ser Ser Trp Ala Ala Asn Asn
            20                  25
```

<210> 118
<211> 384
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 118

```
Met Met Ile Gln Trp Asn Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala
 1           5               10              15

Arg Gly Leu Xaa Leu Thr Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly
            20              25              30

Gly Arg Ala Gln Ile Gly Val Val Asp Asp Glu Ala Lys Ala Pro Asp
            35              40              45

Leu Met Gln Ile Met Glu Ala Val Leu Gly Arg Arg Val Gly Xaa Leu
    50              55              60

Arg Xaa Ala Thr Pro Ser Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn
 65         70              75              80

Val Arg Leu Tyr His Val Tyr Glu Lys Gly Lys Asp Leu Val Val Leu
            85              90              95

Glu Leu Ala Thr Pro Pro Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp
            100             105             110

Phe Tyr Ile Leu Asp Gln Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly
        115             120             125

Arg Met Ser Ser Leu Gln Glu Arg Lys Ala Ala Phe Ser Arg Ala Val
    130             135             140

Gly Phe Ile Gln Ala Lys Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val
145             150             155             160

Val Asn Asp Gly Ala Glu Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr
            165             170             175

Trp Ser Glu Lys Arg Arg Arg Asn Gln Lys Xaa Gly Gly Arg Asp Lys
        180             185             190

Ser Ile His Val Lys Leu Asp Val Gly Lys Leu His Thr Gln Pro Lys
        195             200             205

Leu Ala Ala Gln Leu Arg Met Val Asp Asp Gly Ser Gly Lys Val Glu
    210             215             220

Val Trp Cys Ile Gln Asp Leu His Arg Gln Pro Val Asp Pro Lys Arg
225             230             235             240

His Gly Gln Leu Cys Ala Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr
            245             250             255

Gln Arg Leu Gly Arg Val Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His
        260             265             270

Gln Ala Thr Ala Asp Glu Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu
    275             280             285

Leu Asp Val Met Tyr Gly Gly Val Leu Val Gln Glu His Val Thr Met
```

```
        290                   295                    300

Gly Ser Glu Pro Pro His Phe Leu Ala Ile Phe Gln Gly Gln Leu Val
305                 310                 315                     320

Ile Phe Gln Glu Arg Ala Gly His His Gly Lys Gly Gln Ser Ala Ser
                325                 330                 335

Thr Thr Arg Leu Phe Gln Val Gln Gly Thr Asp Ser His Asn Thr Arg
                340                 345                 350

Thr Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile
            355                 360                 365

Phe Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly
        370                 375                 380
```